

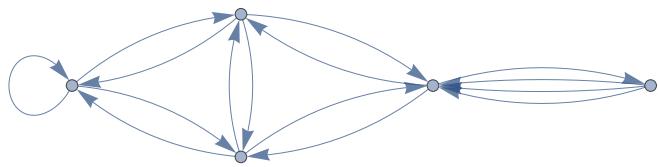
# Supersingular isogeny graphs

for  $(p, l)$  with  $48 < p < 512$ ,  $l = 2, 3, 5, 7, 13$

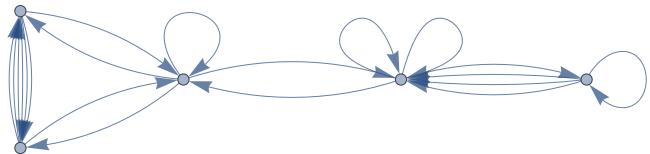
$p = 53$

$$j(3+j)(7+j)(-14 - 3j + j^2)$$

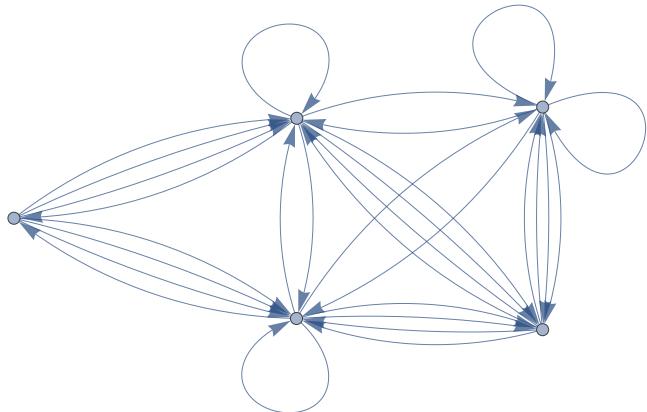
$l = 2$



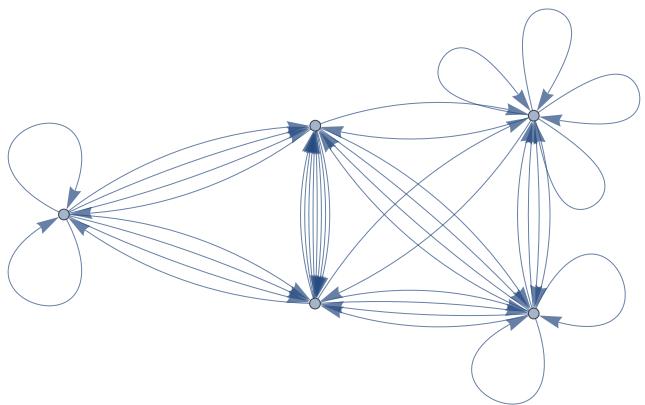
$l = 3$



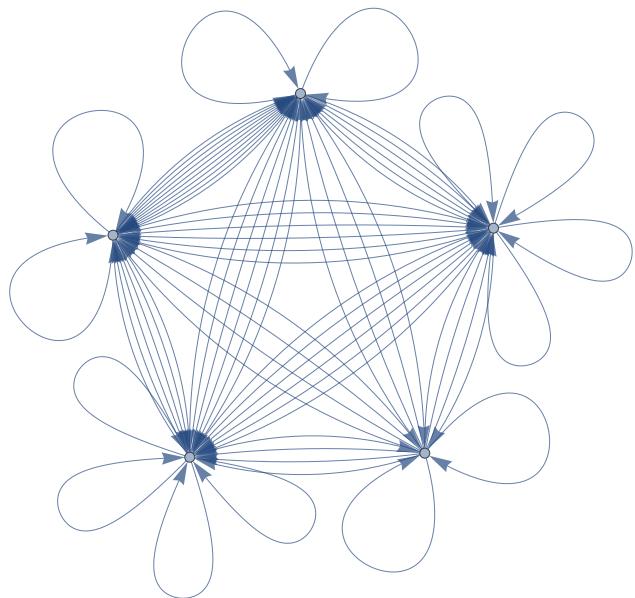
$l = 5$



$l = 7$



$l = 13$

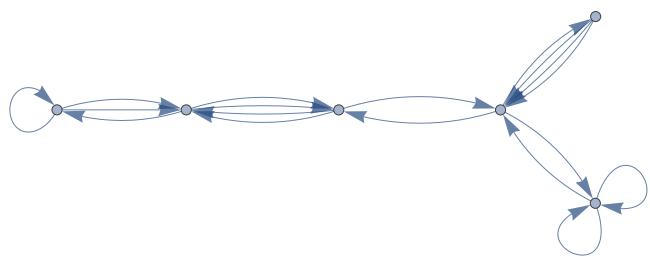


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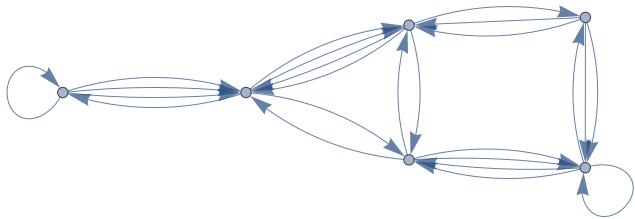
$p = 59$

$$(-1728 + j) \ (-28 + j) \ (-15 + j) \ j \ (11 + j) \ (12 + j)$$

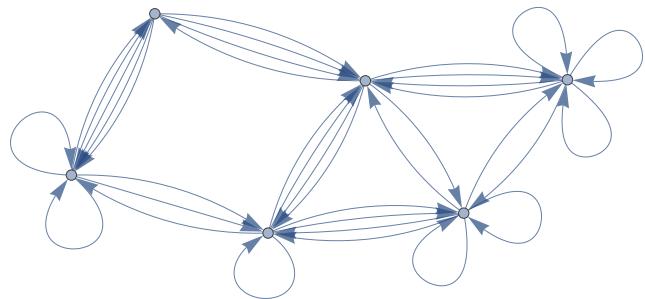
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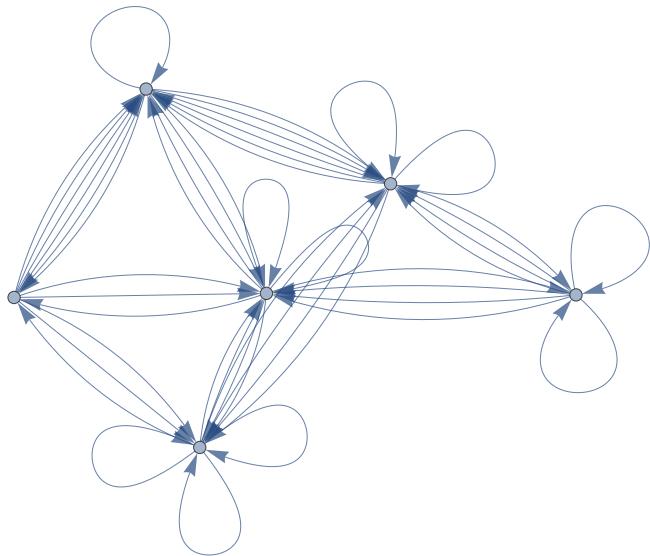
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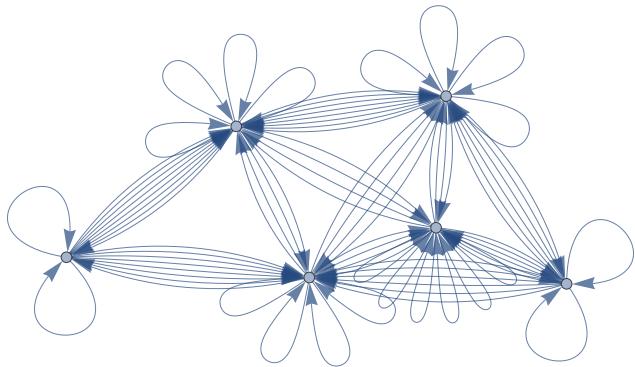
$l = 5$



$l = 7$



$l = 13$

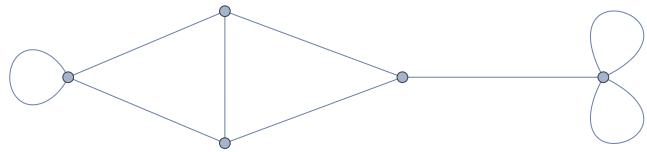


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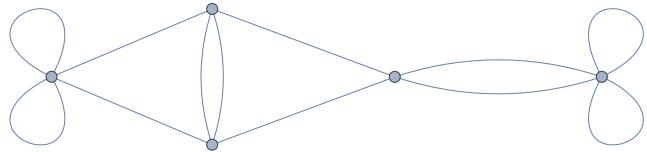
p = 61

$$(-9 + j) (11 + j) (20 + j) (24 - 23 j + j^2)$$

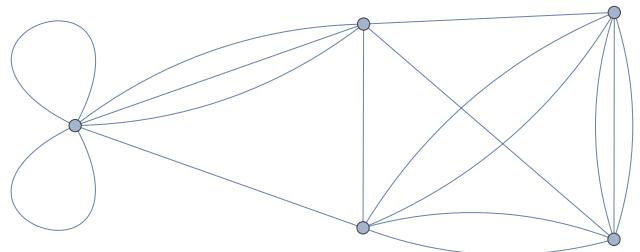
l = 2



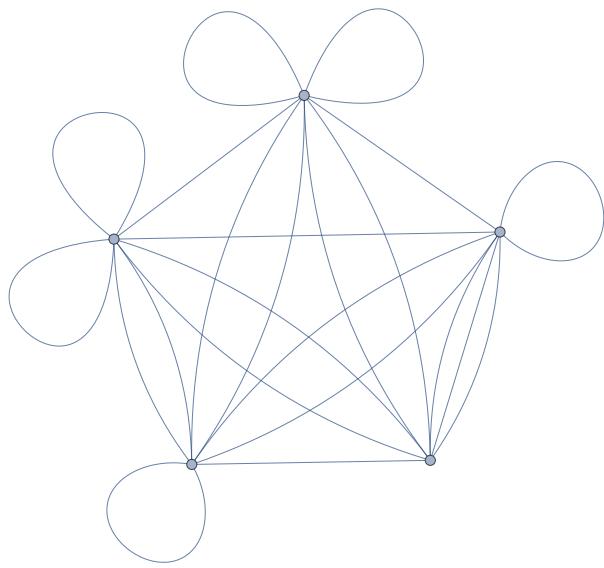
l = 3



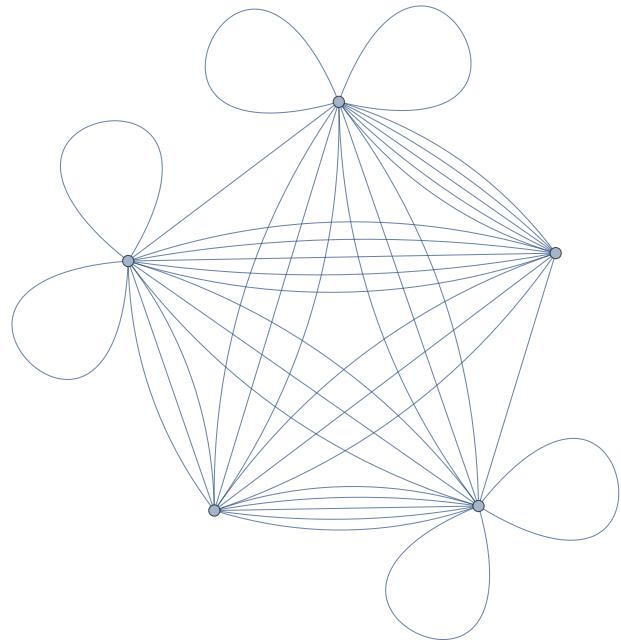
l = 5



l = 7



$l = 13$

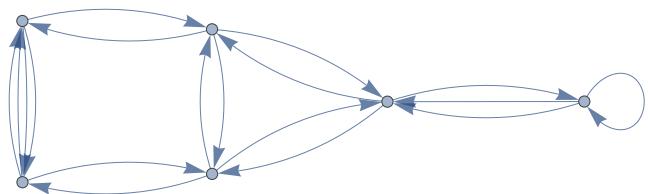


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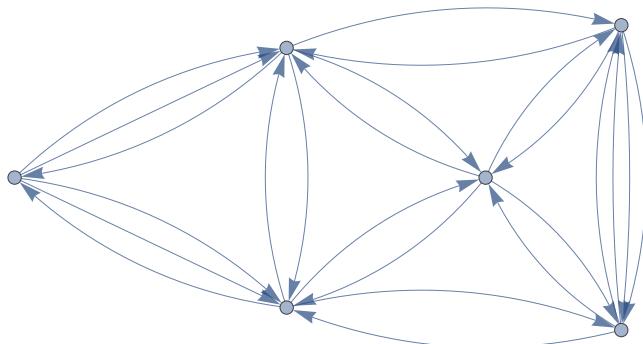
$p = 67$

$$(-1728 + j) (1 + j) (24 - 23 j + j^2) (-22 + 8 j + j^2)$$

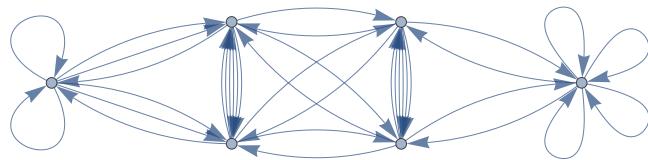
$l = 2$



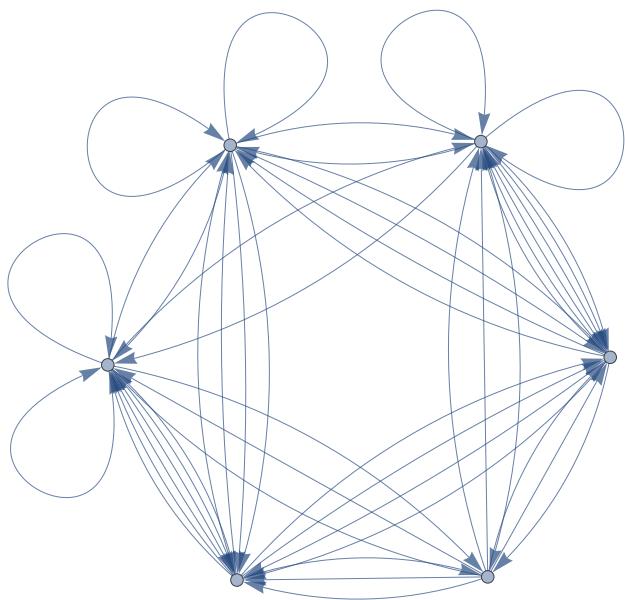
$l = 3$



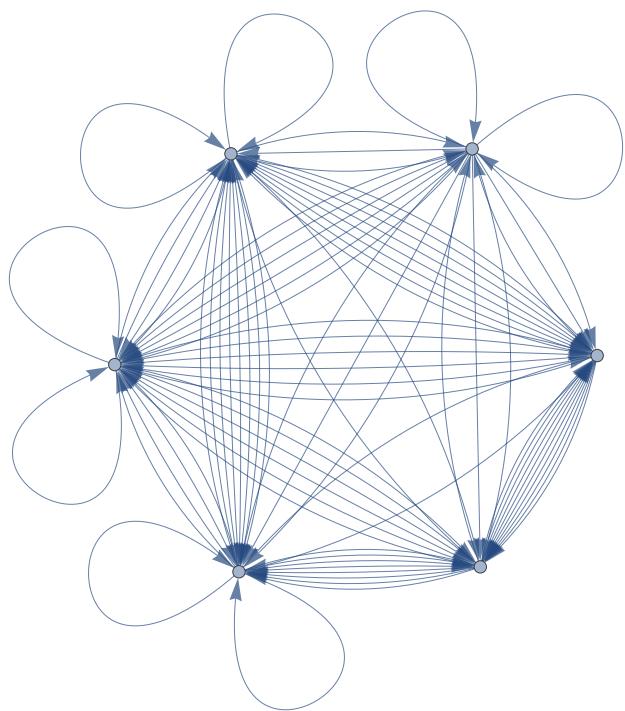
$l = 5$



$l = 7$



$l = 13$

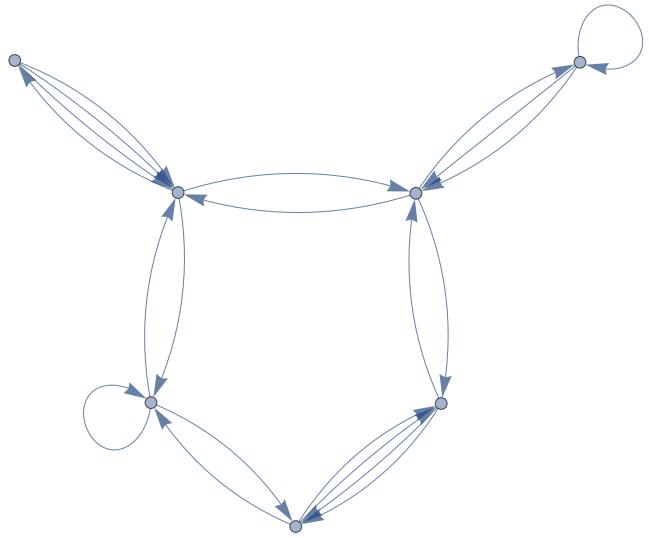


$p = 71$

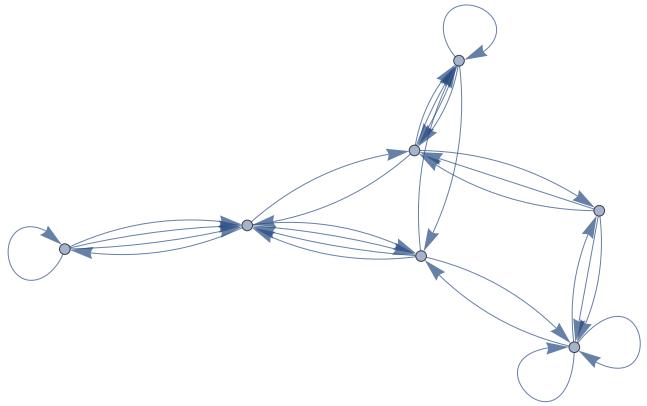
$$(-1728 + j) \ (-17 + j) \ j \ (5 + j) \ (23 + j) \ (30 + j) \ (31 + j)$$

**8 |**

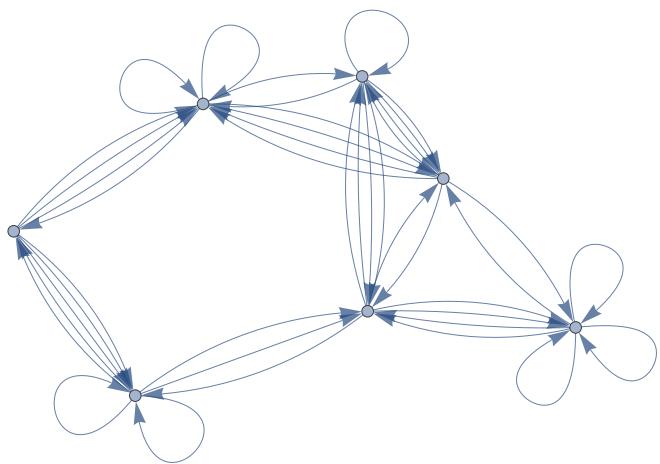
$l = 2$



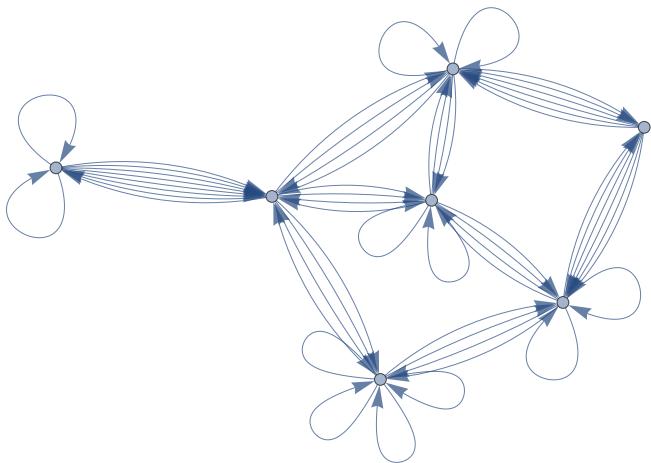
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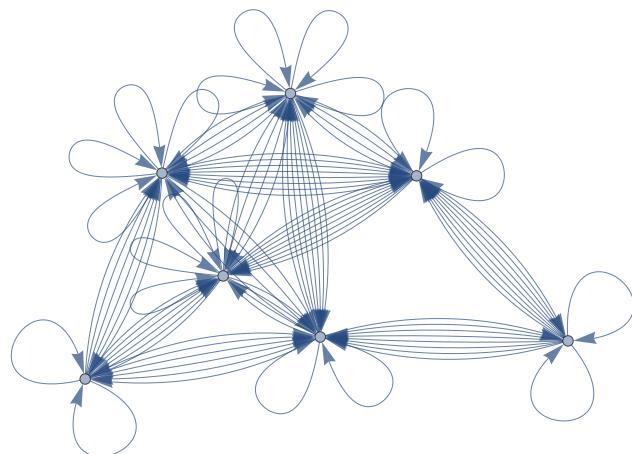
$l = 5$



$l = 7$

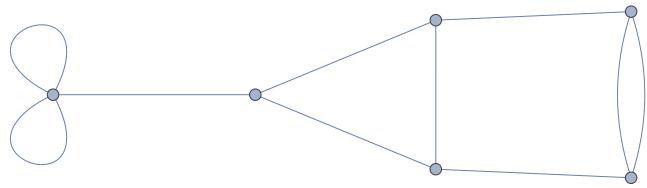


$l = 13$

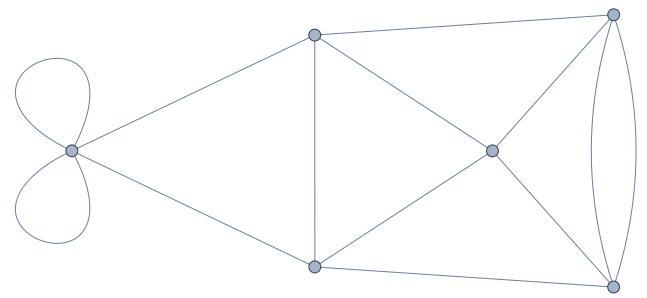


$p = 73$   
 $(-9 + j) (17 + j) (8 - 16j + j^2) (9 - 5j + j^2)$

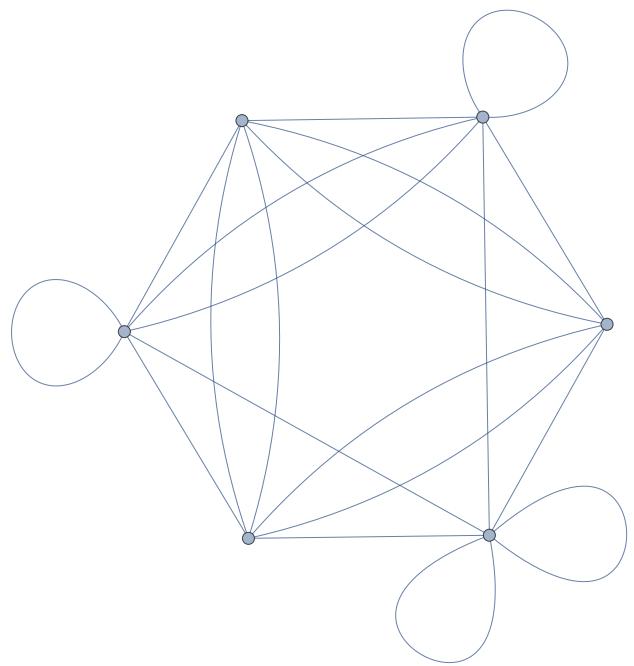
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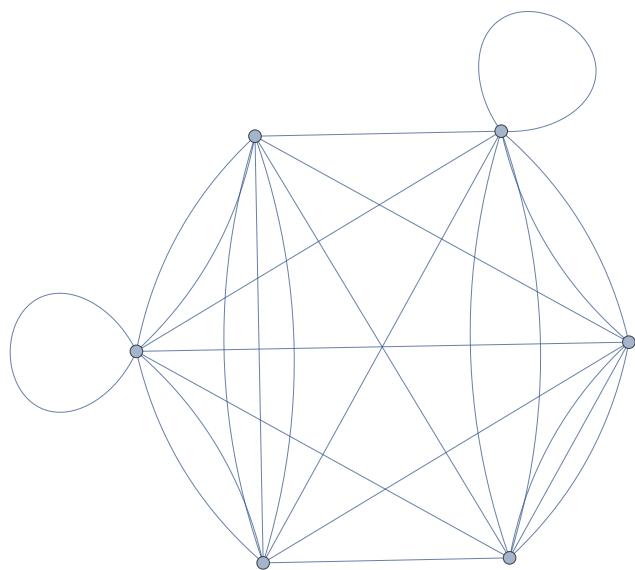
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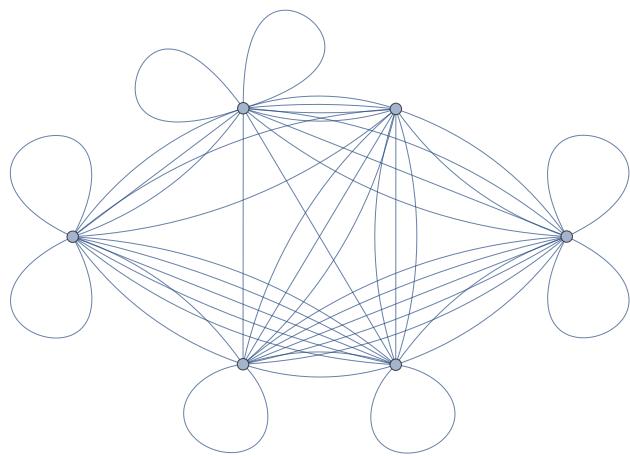
$l = 5$



$l = 7$



$l = 13$

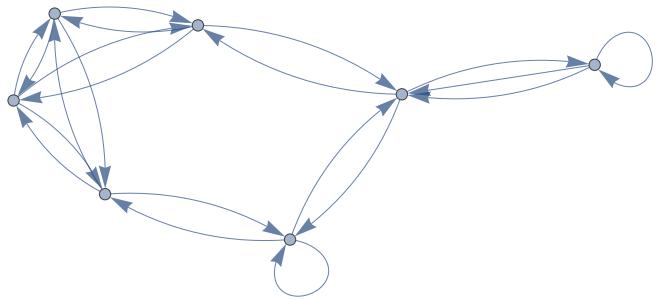


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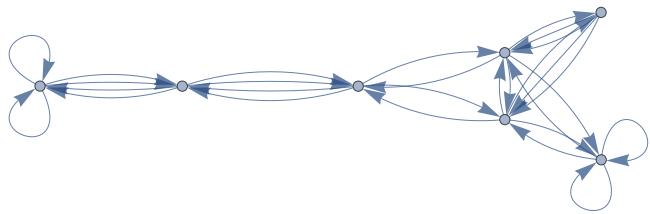
$p = 79$

$$(-1728 + j) (-21 + j) (-17 + j) (-15 + j) (15 + j) (-17 + 14j + j^2)$$

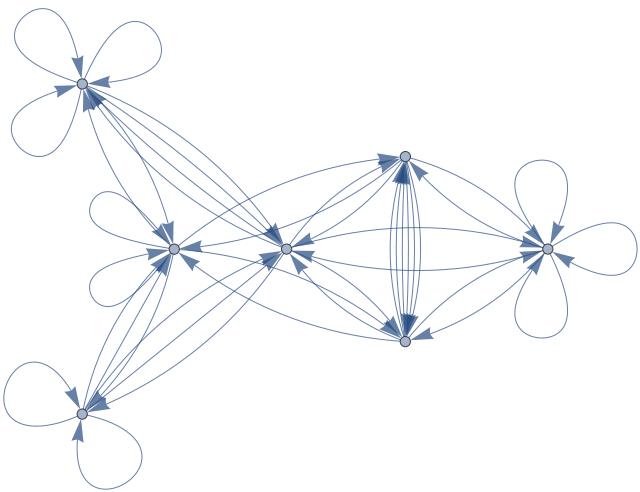
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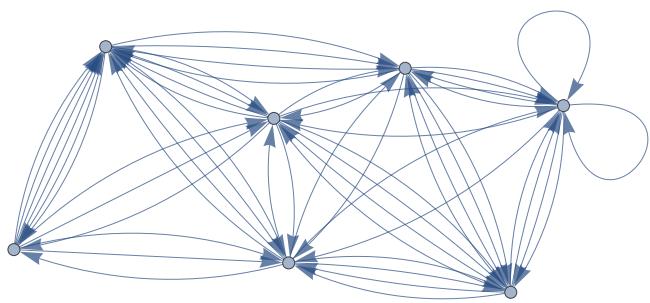
$$l = 3$$



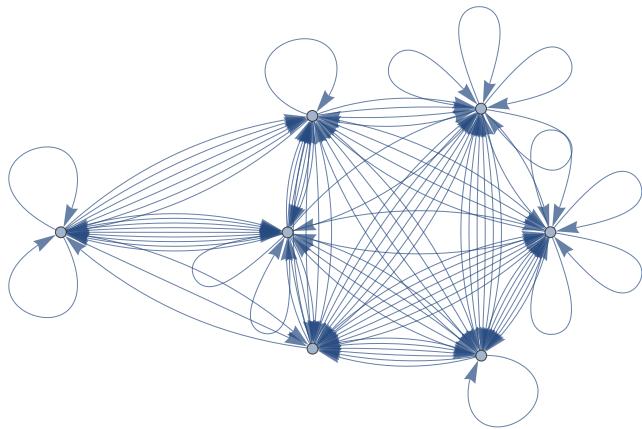
$$l = 5$$



l = 7



$l = 13$

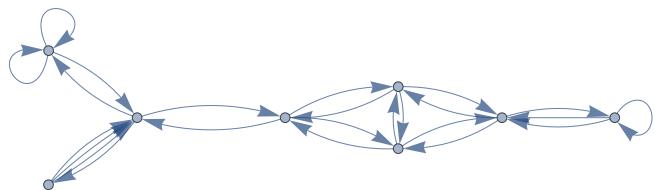


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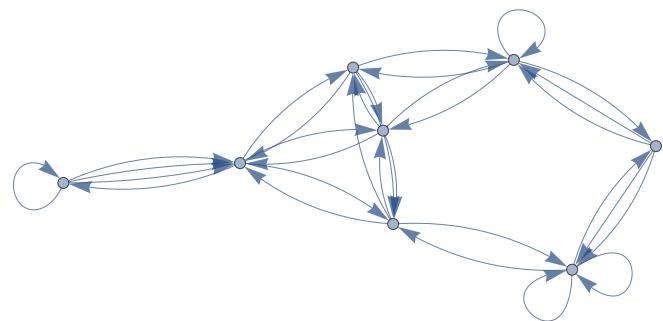
$p = 83$

$$(-1728 + j) (-28 + j) (-17 + j) j (16 + j) (33 + j) (-10 + 7 j + j^2)$$

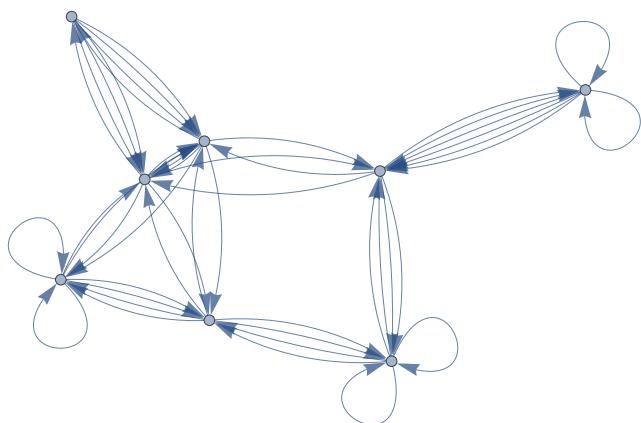
$l = 2$



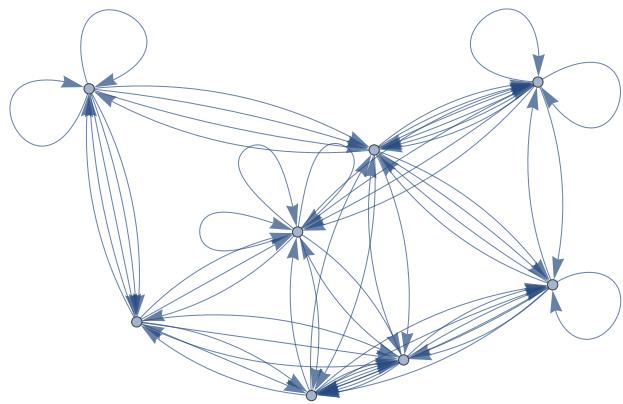
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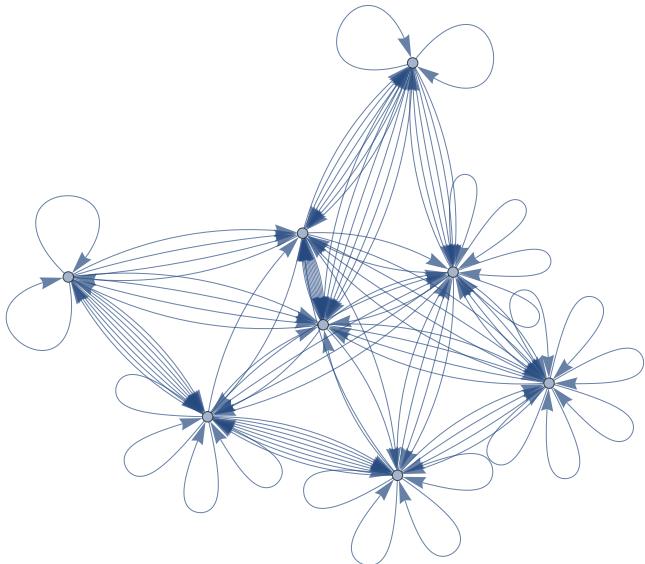
$l = 5$



$l = 7$



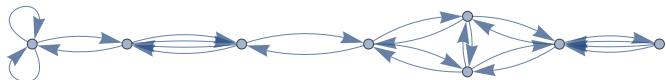
$l = 13$



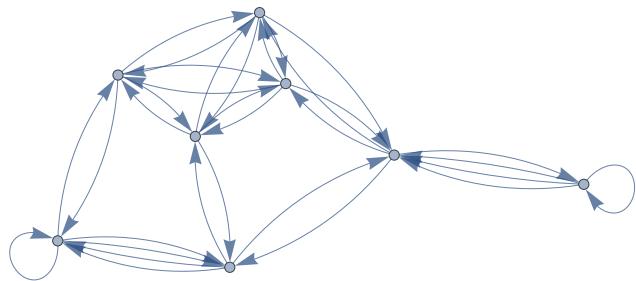
p = 89

$$(-13 + j) (-7 + j) (-6 + j) j (23 + j) (37 + j) (-33 + 26 j + j^2)$$

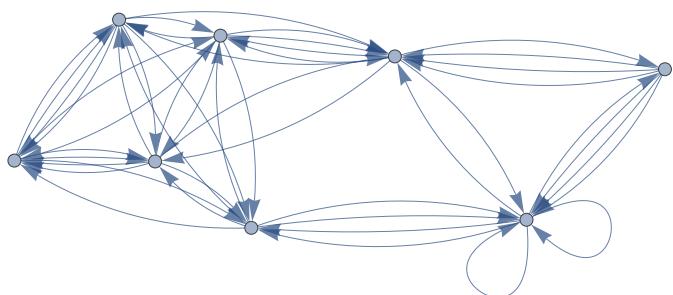
l = 2



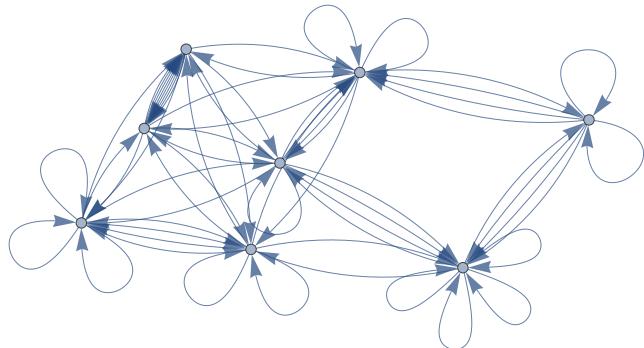
l = 3



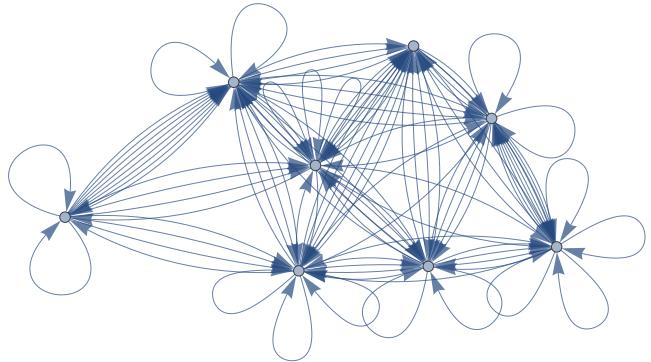
l = 5



l = 7



l = 13

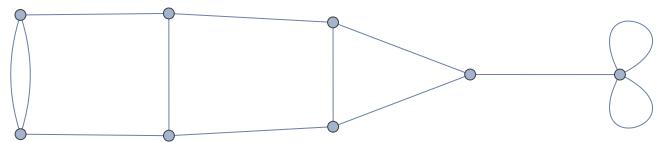


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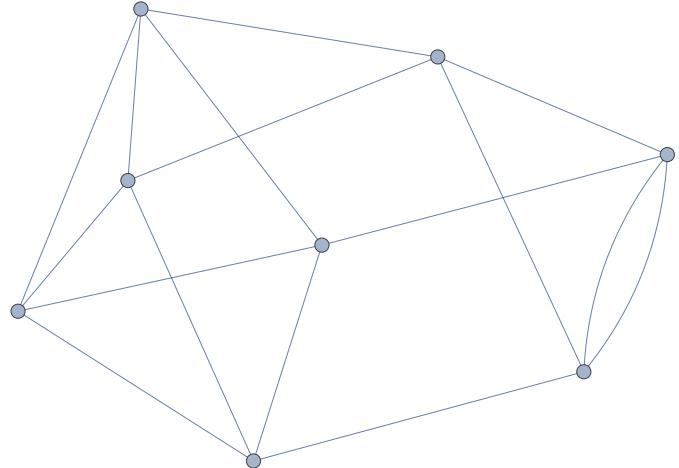
p = 97

$$(-20 + j) \ (-1 + j) \ (45 + 7 j + j^2) \ (-30 + 32 j + j^2) \ (8 + 42 j + j^2)$$

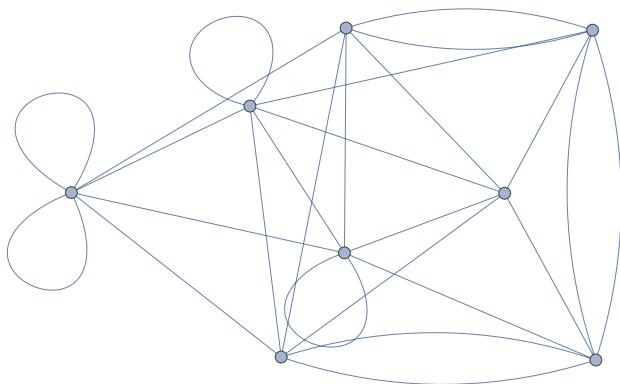
l = 2



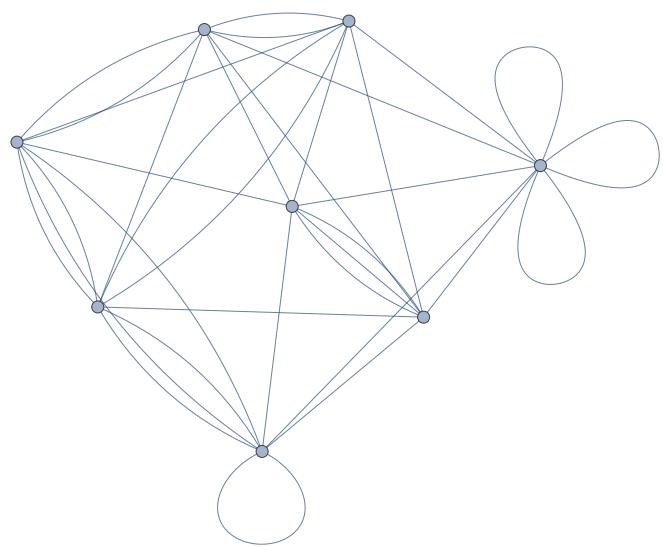
l = 3



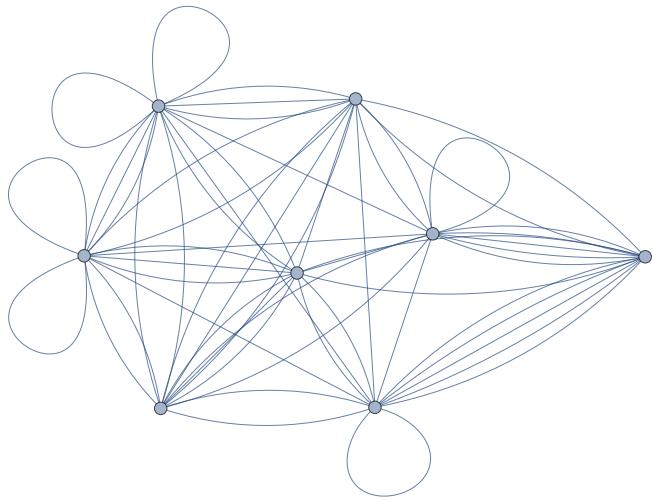
l = 5



$l = 7$



$l = 13$

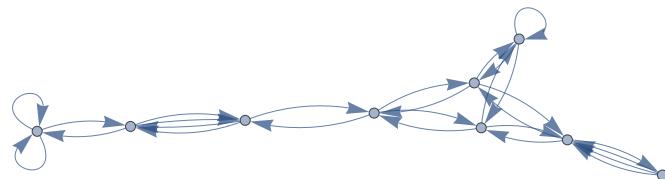


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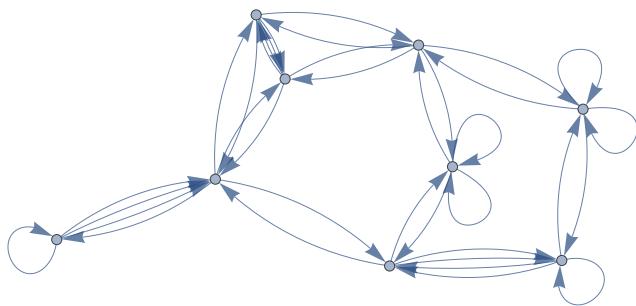
p = 101

$$(-21 + j) (-3 + j) j (35 + j) (37 + j) (42 + j) (44 + j) (-47 + 27 j + j^2)$$

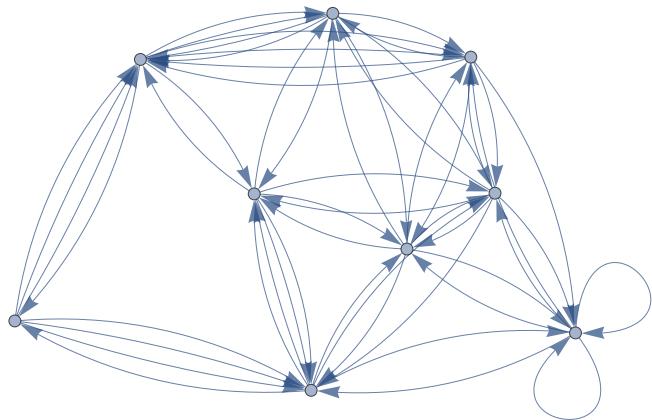
l = 2



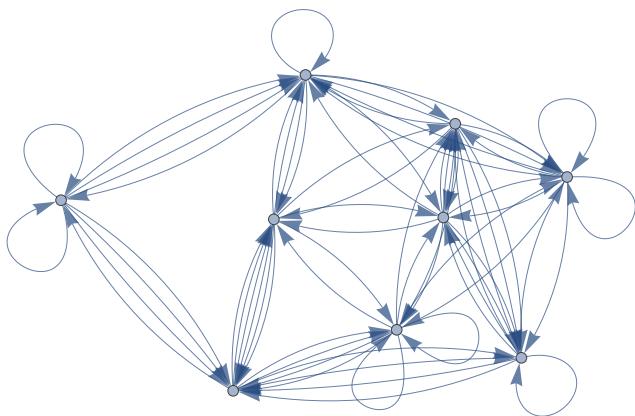
l = 3



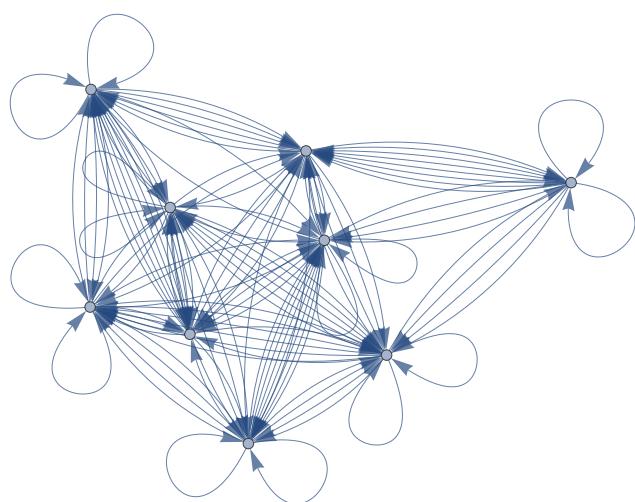
l = 5



$l = 7$



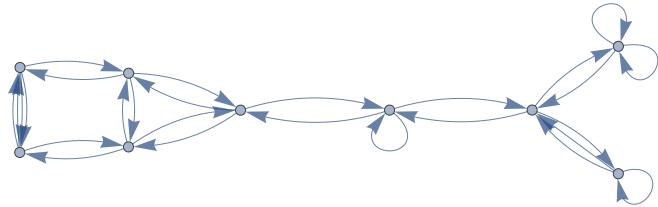
$l = 13$



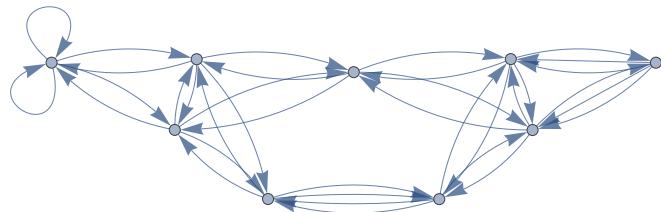
$p = 103$

$$(-1728 + j) (-34 + j) (-24 + j) (-23 + j) (34 + j) (-34 - 40j + j^2) (-30 - 19j + j^2)$$

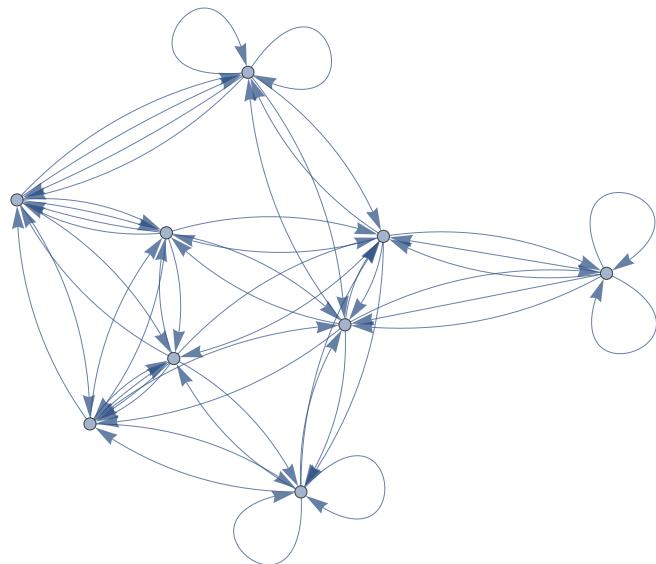
$l = 2$



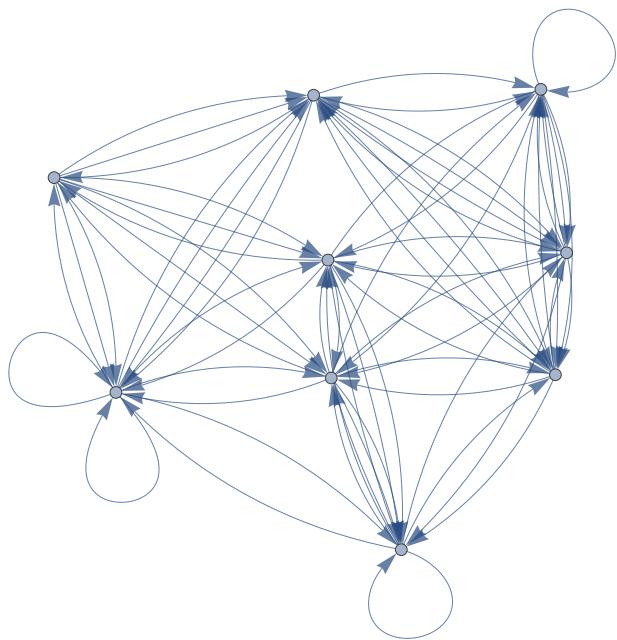
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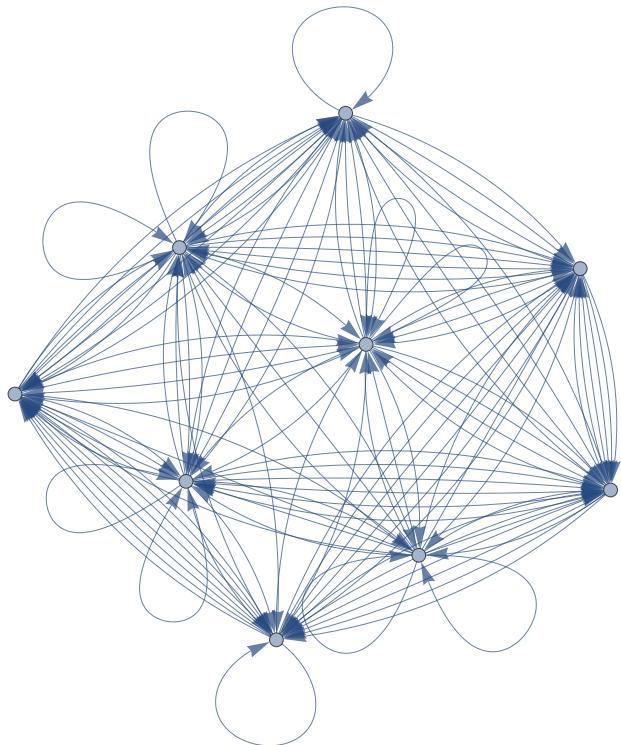
$l = 5$



$l = 7$



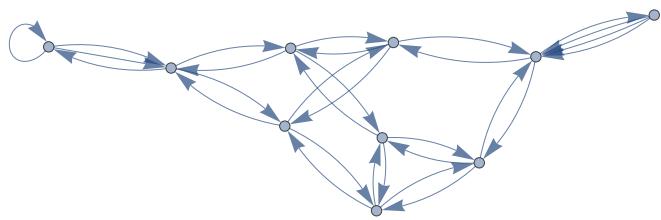
$l = 13$



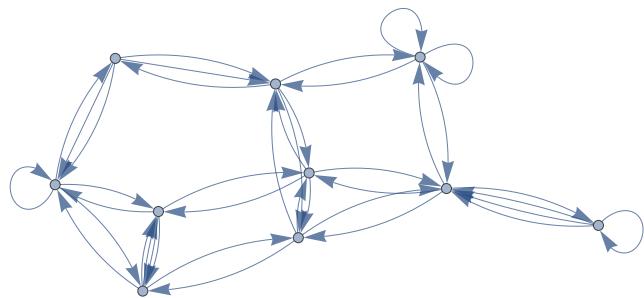
p = 107

$$(-1728 + j) (-47 + j) j (13 + j) (26 + j) (35 + j) (-49 - 41 j + j^2) (30 - 25 j + j^2)$$

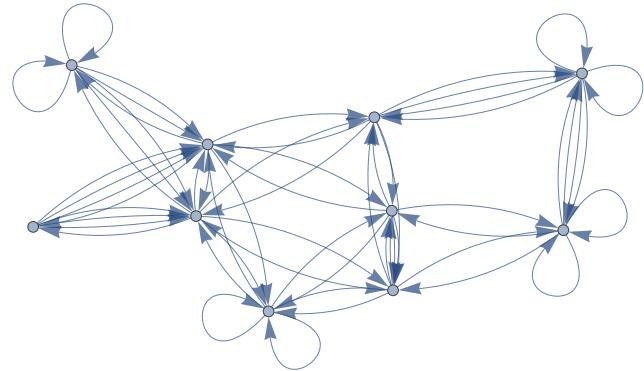
l = 2



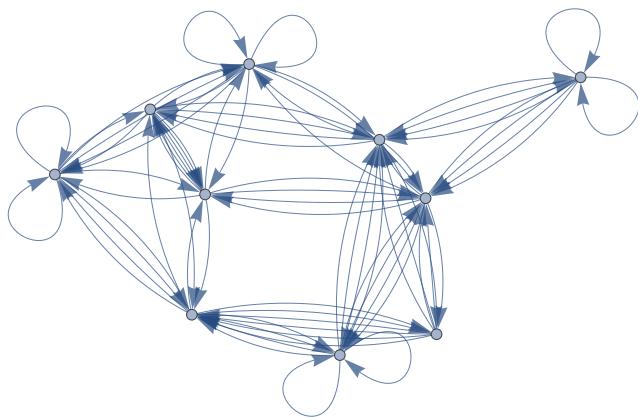
l = 3



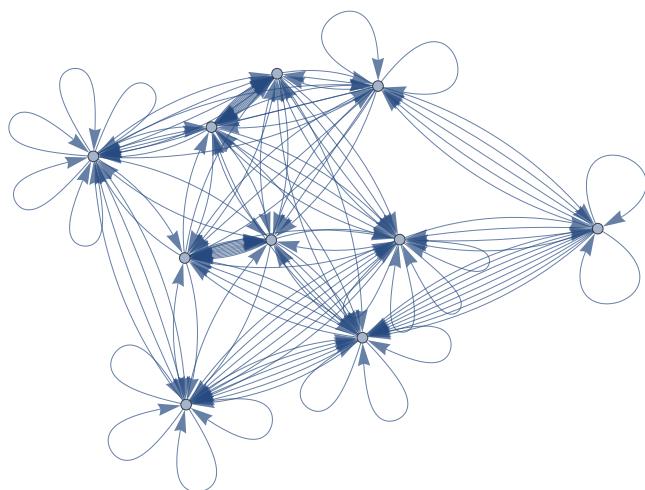
l = 5



l = 7



$l = 13$

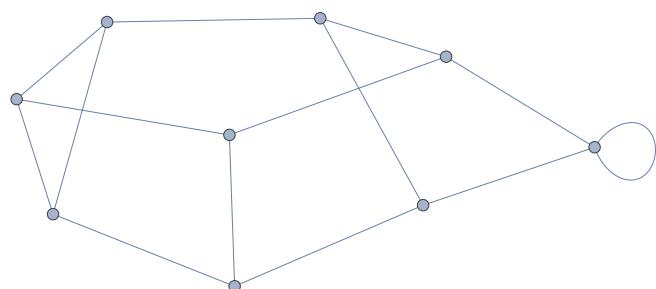



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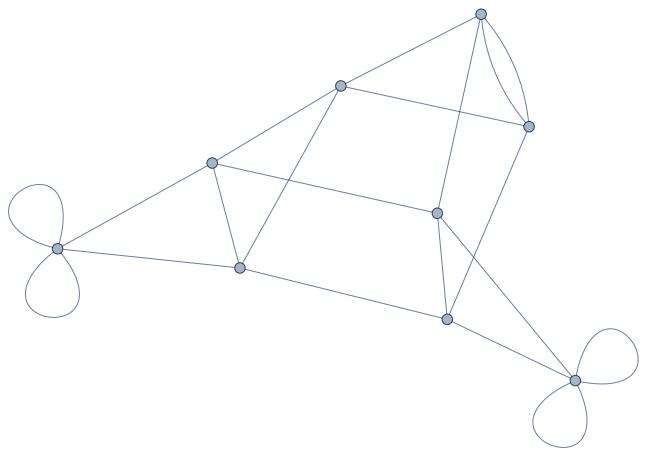
$p = 109$

$$(-43 + j) (-41 + j) (-17 + j) (17 - 48 j + j^2) (-23 - 31 j + j^2) (23 + 22 j + j^2)$$

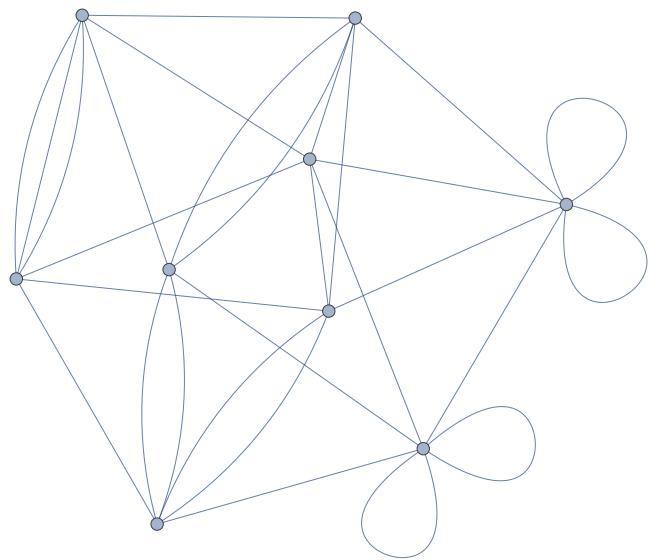
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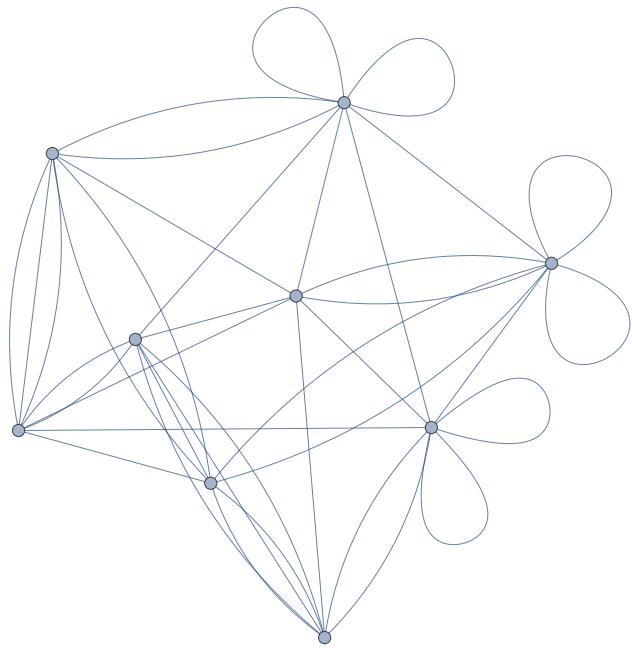
$l = 3$



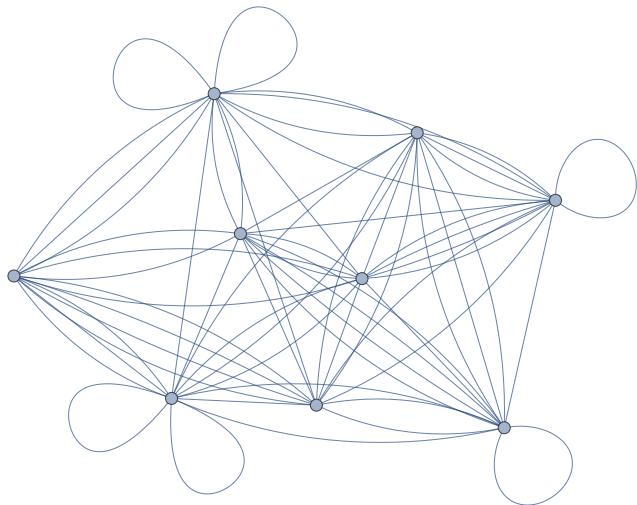
$l = 5$



$l = 7$



$l = 13$

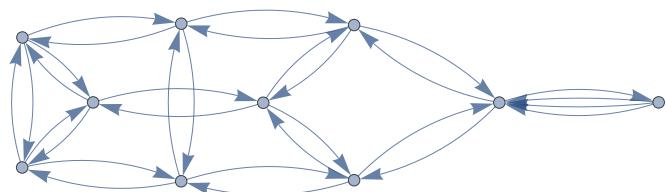


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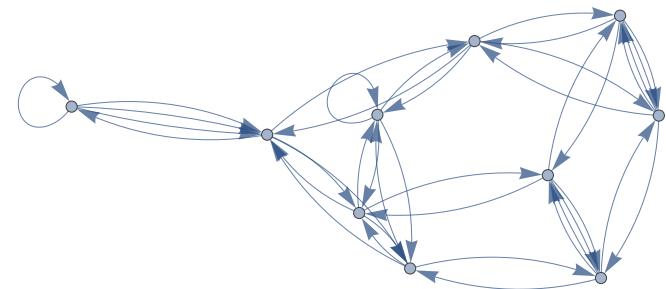
$p = 113$

$$(-54 + j) j (14 + j) (41 + j) (-31 + 9 j + j^2) (38 + 18 j + j^2) (-48 + 32 j + j^2)$$

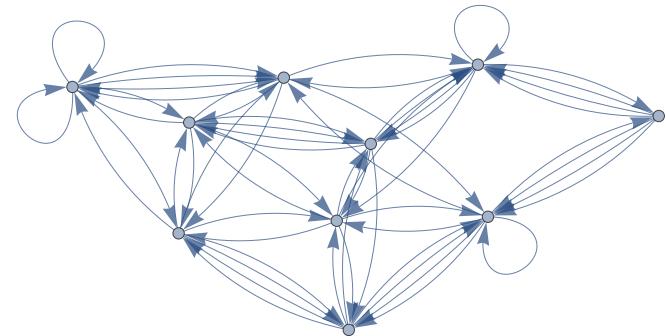
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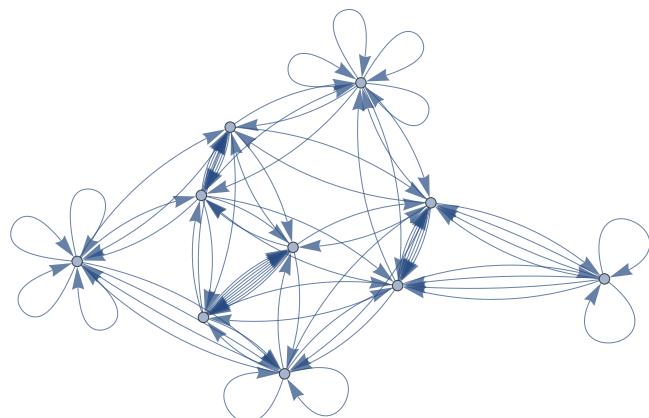
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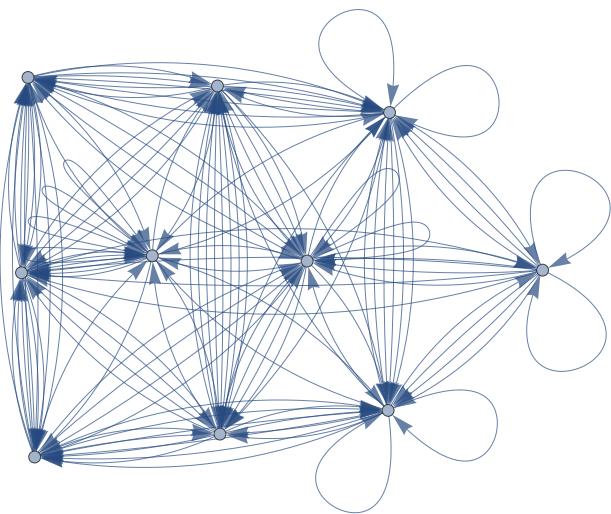
$l = 5$



$l = 7$



$l = 13$

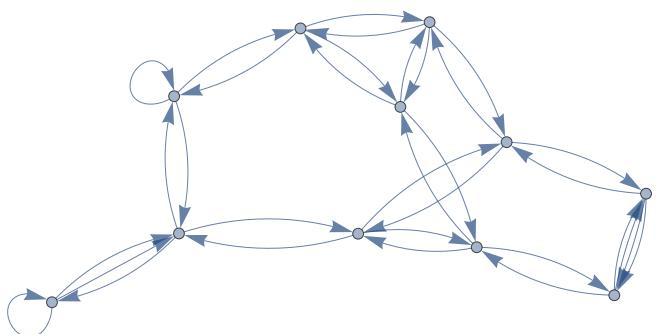


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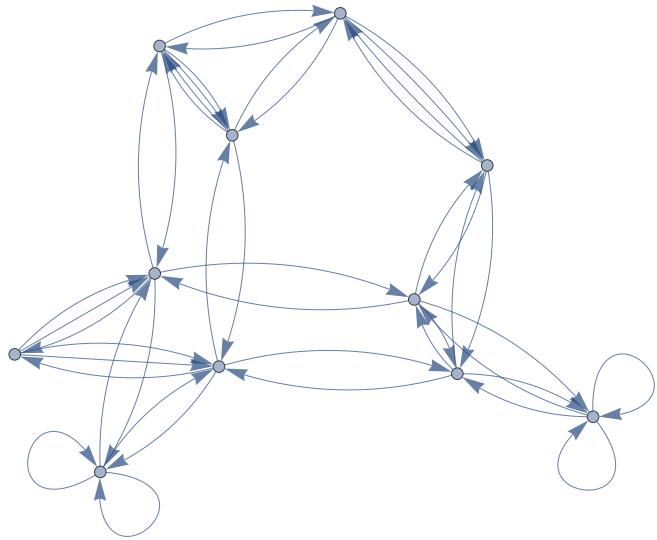
p = 127

$$(-1728 + j) (1 + j) (2 + j) (32 + j) (54 + j) (8 - 39 j + j^2) (-25 - 32 j + j^2) (38 + 17 j + j^2)$$

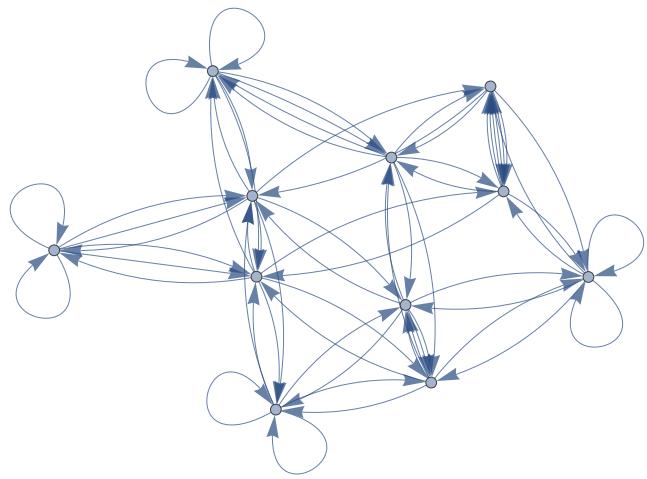
l = 2



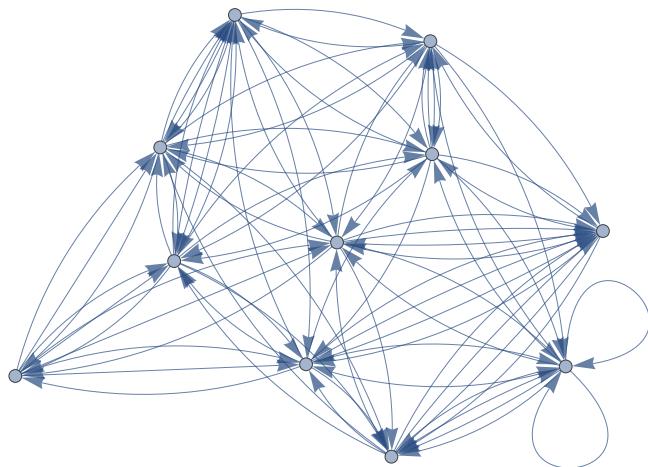
l = 3



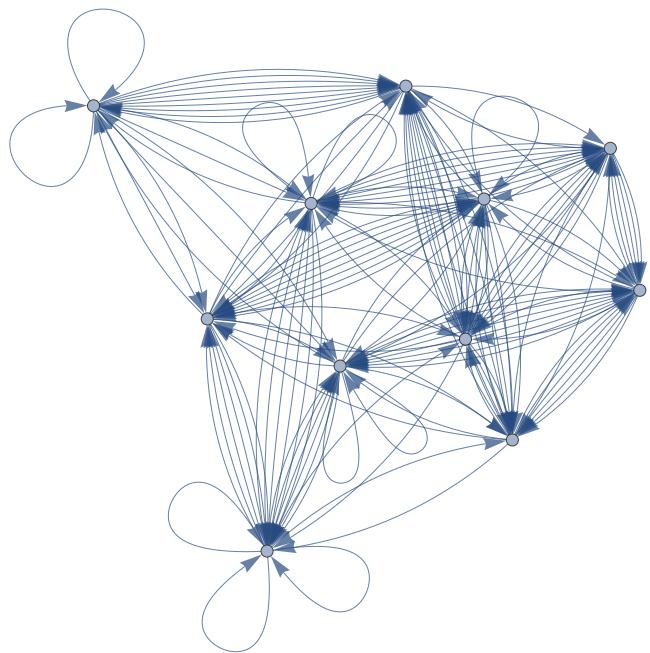
$l = 5$



$l = 7$



$l = 13$

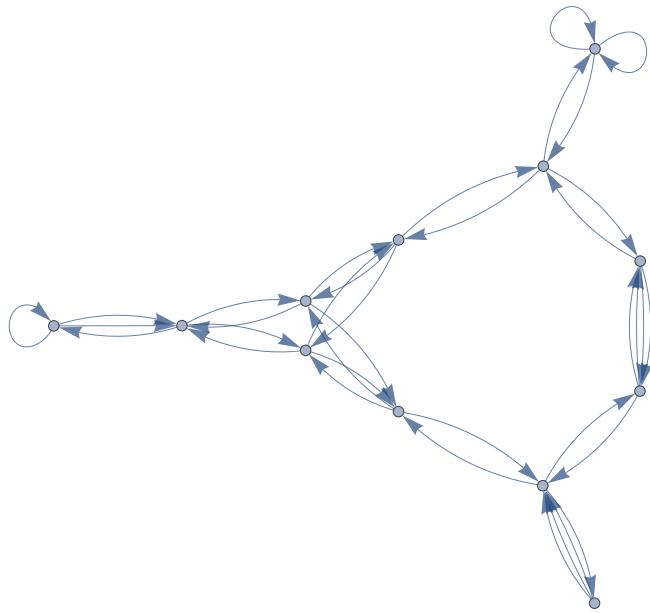


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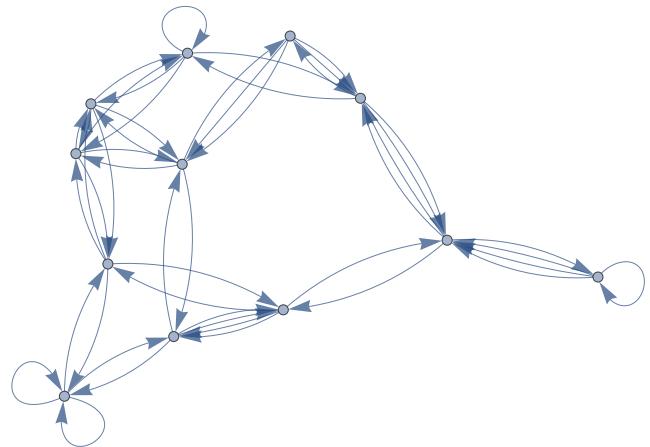
$p = 131$

$$\begin{aligned} & (-1728 + j) \ (-62 + j) \ (-50 + j) \ (-31 + j) \\ & (-28 + j) \ (-10 + j) \ j \ (18 + j) \ (37 + j) \ (49 + j) \ (-42 - 47 j + j^2) \end{aligned}$$

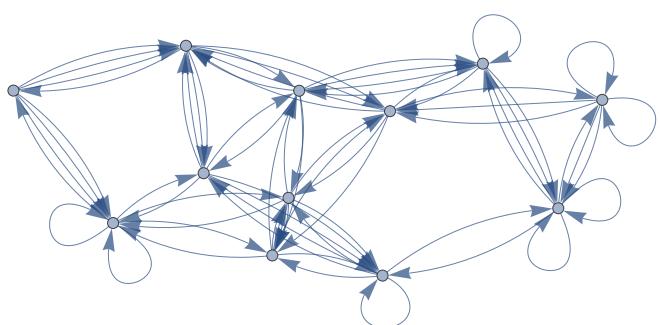
$l = 2$



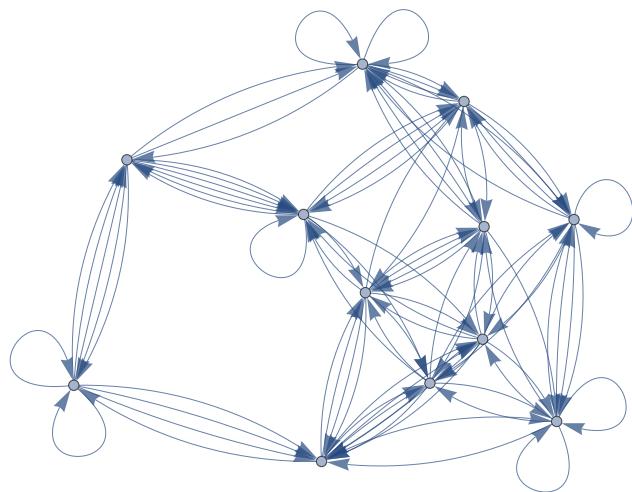
$l = 3$



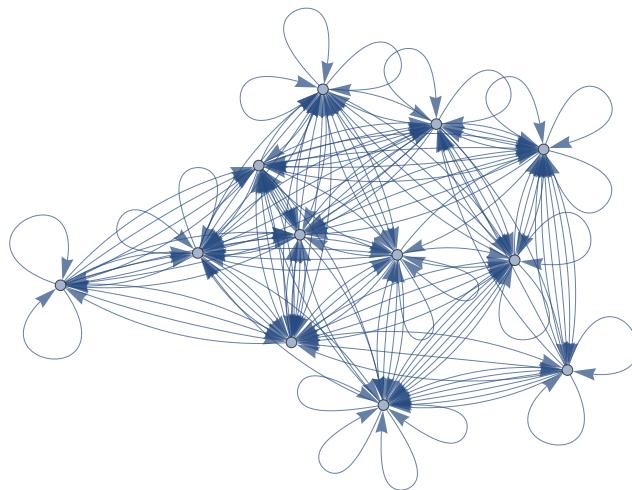
$l = 5$



$l = 7$



$l = 13$

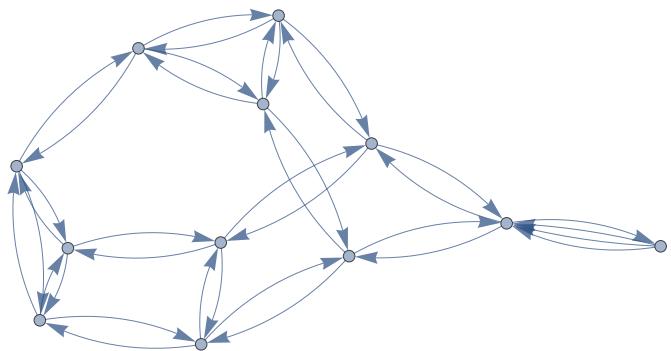


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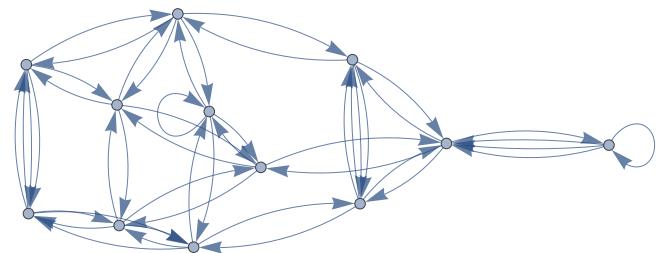
$p = 137$

$$(-22 + j) \ j \ (1 + j) \ (59 + j) \ (-24 - 38 \ j + j^2) \ (-35 - 9 \ j + j^2) \ (-46 + 30 \ j + j^2) \ (-18 + 39 \ j + j^2)$$

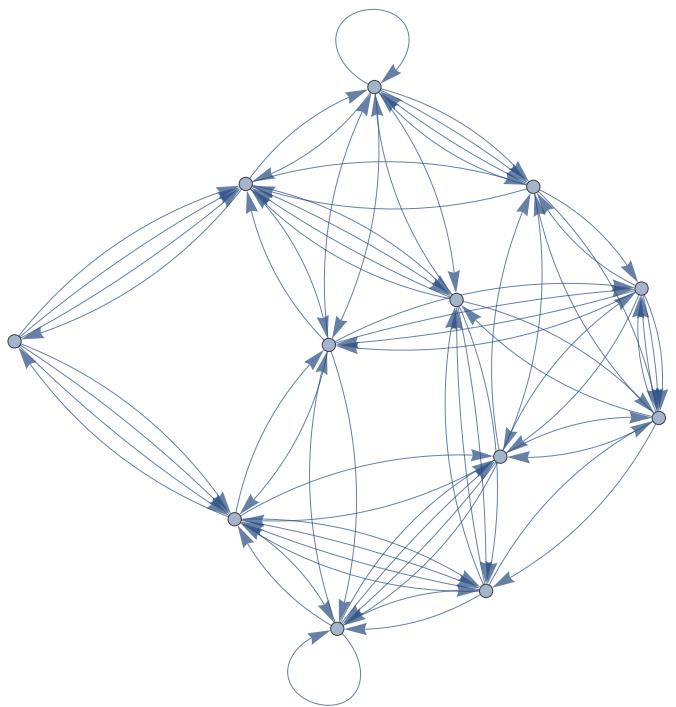
$l = 2$



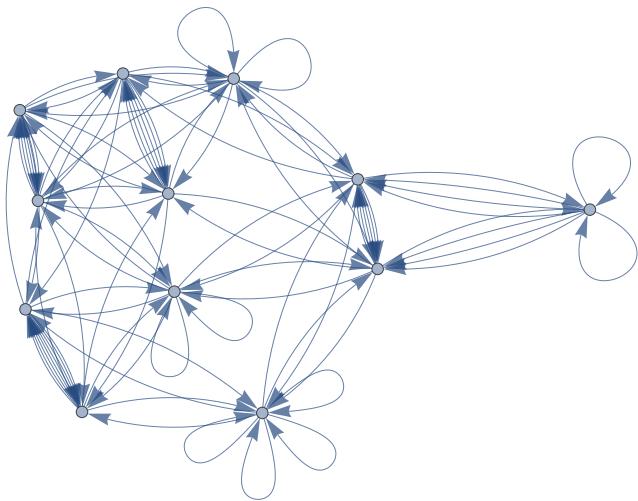
$l = 3$



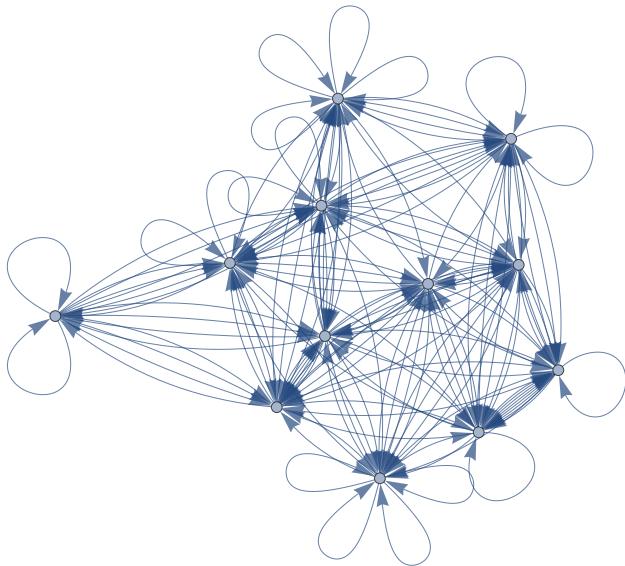
$l = 5$



$l = 7$



$l = 13$

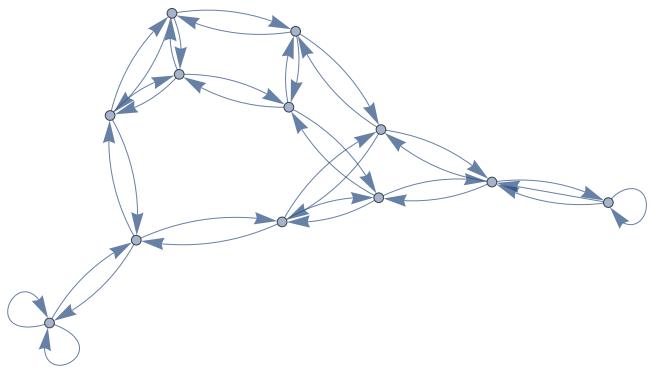


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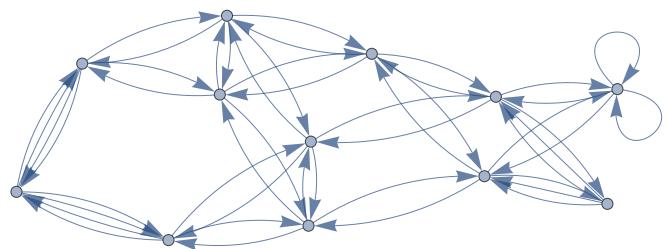
$p = 139$

$$(-1728 + j) (-65 + j) (-44 + j) (-36 + j) (-8 + j) (39 + j) (8 + 8j + j^2) (-45 + 25j + j^2) (23 + 32j + j^2)$$

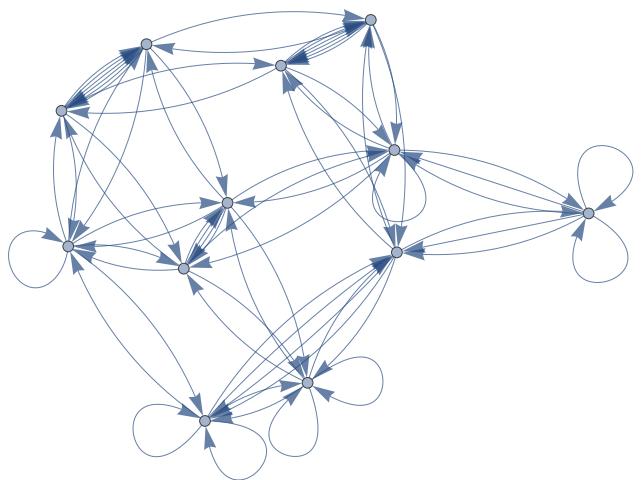
$l = 2$



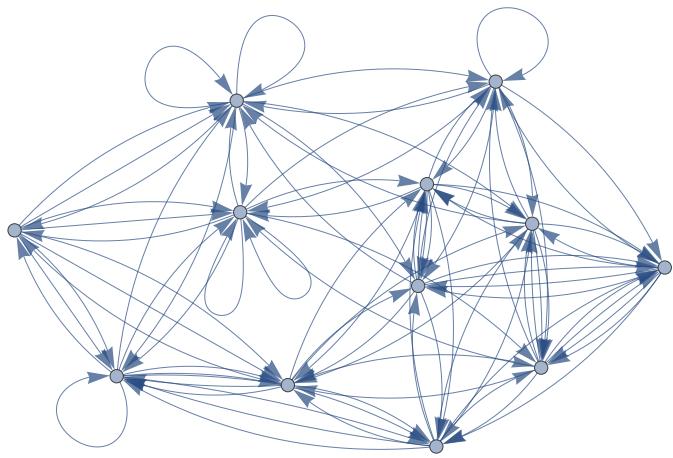
$l = 3$



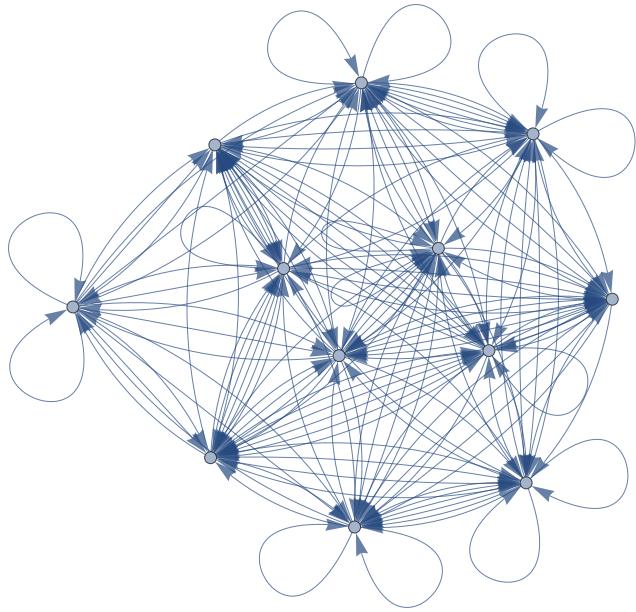
$l = 5$



$l = 7$



$l = 13$

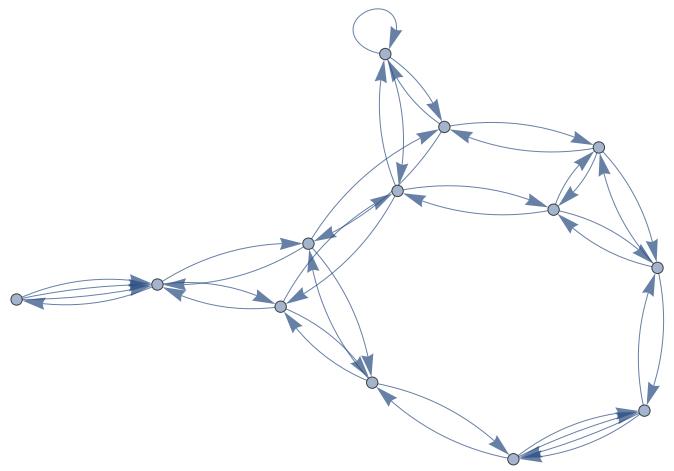


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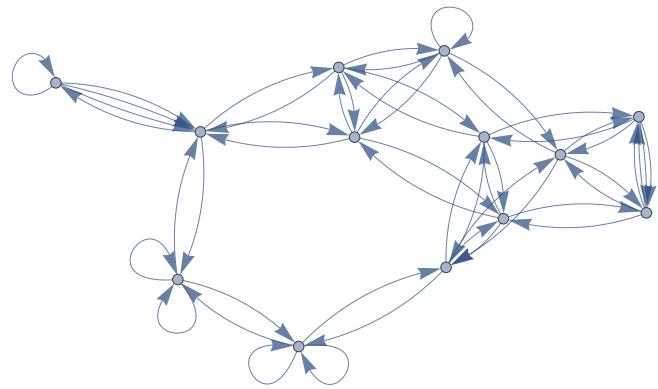
$p = 149$

$$\begin{aligned} & (-74 + j) \ (-68 + j) \ (-62 + j) \ (-30 + j) \ (-12 + j) \\ & j \ (46 + j) \ (-44 - 35 j + j^2) \ (18 - 21 j + j^2) \ (22 + 18 j + j^2) \end{aligned}$$

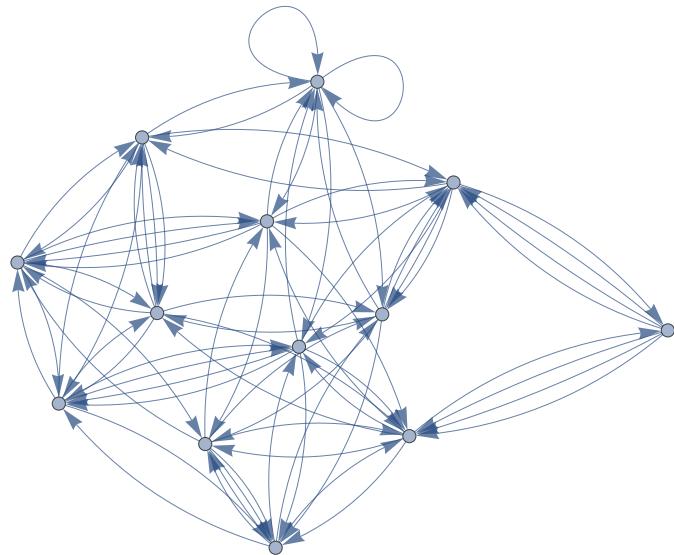
$l = 2$



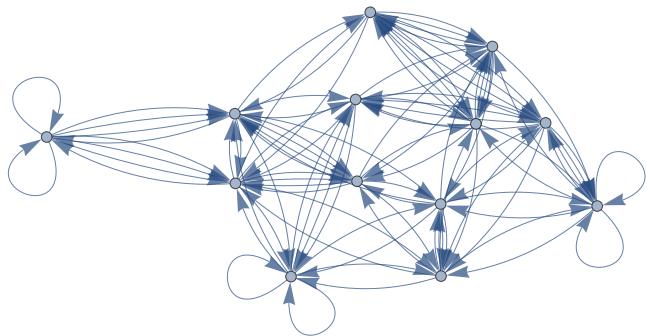
$l = 3$



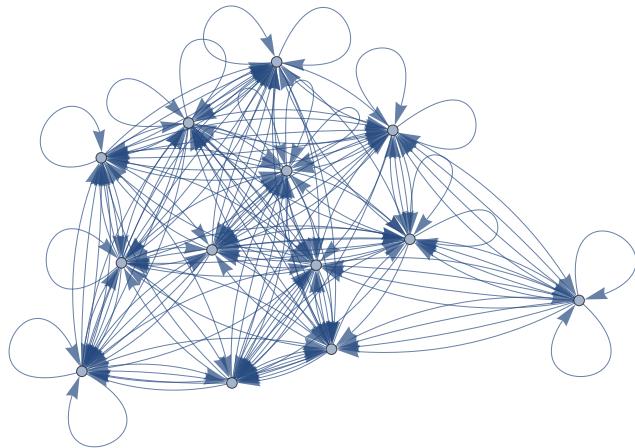
$l = 5$



$l = 7$



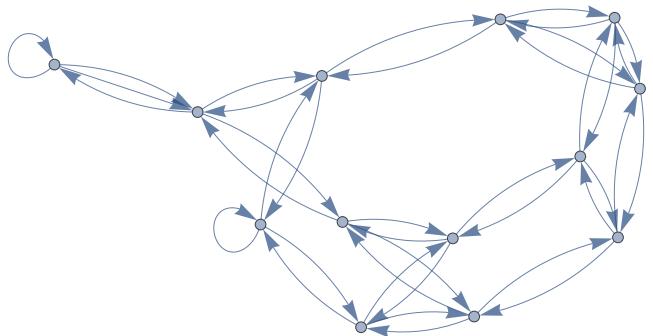
$l = 13$



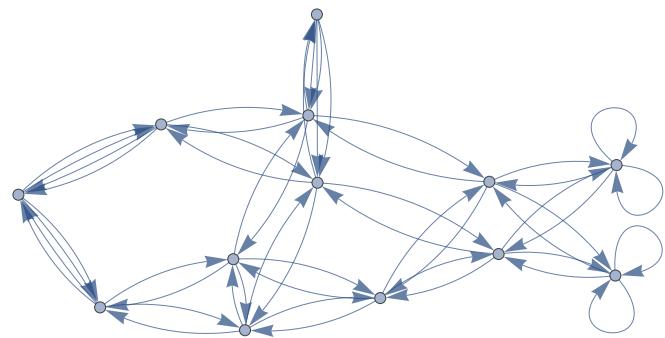
$p = 151$

$$\begin{aligned} & (-1728 + j) \ (-29 + j) \ (1 + j) \ (3 + j) \ (8 + j) \\ & (27 + j) \ (50 + j) \ (24 + 4j + j^2) \ (65 + 36j + j^2) \ (-8 + 69j + j^2) \end{aligned}$$

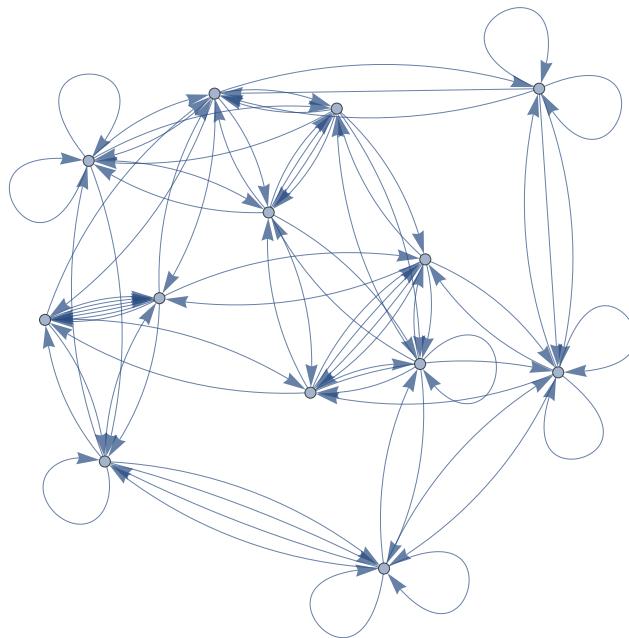
$l = 2$



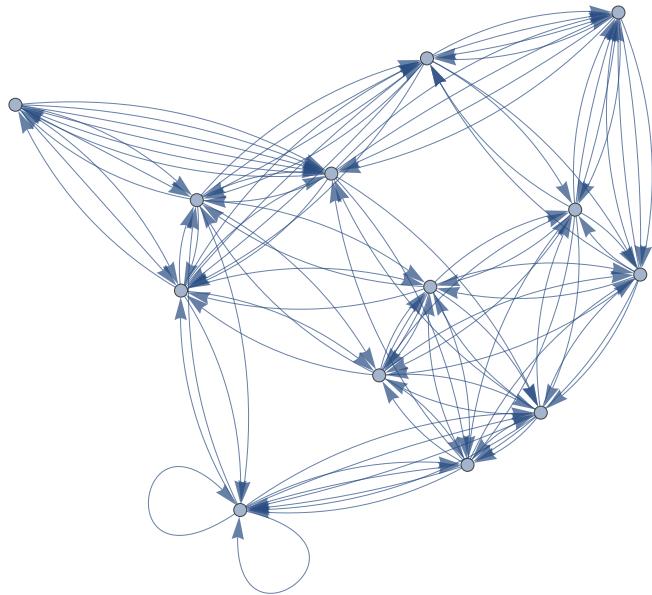
$l = 3$



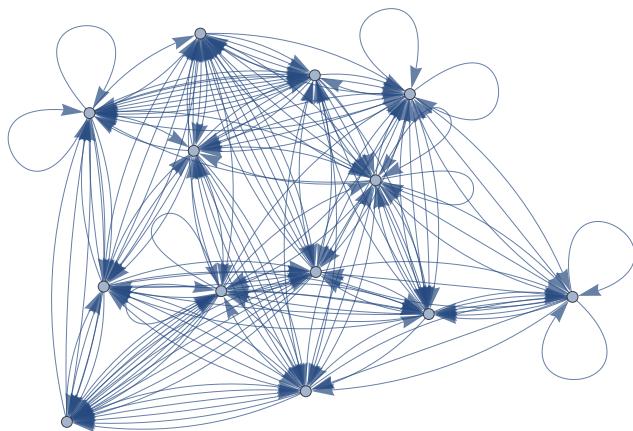
$l = 5$



$l = 7$



$l = 13$

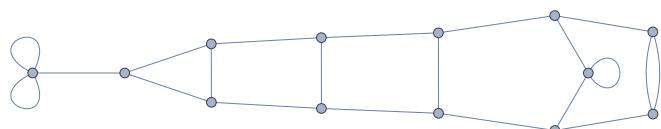



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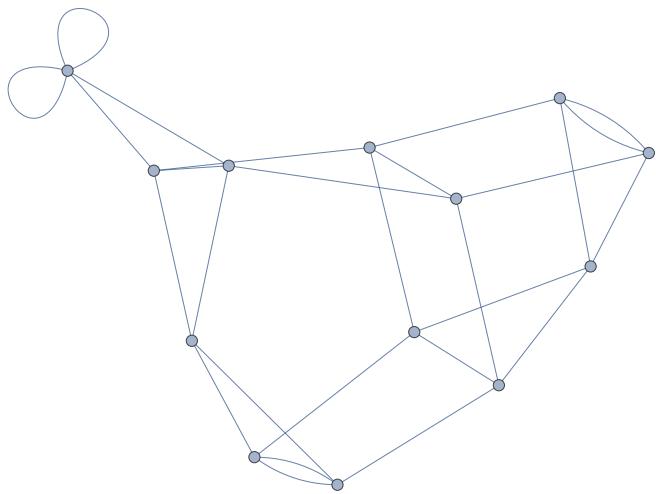
$p = 157$

$$(7 + j) (23 + j) (78 + j) (-8 - 44 j + j^2) (2 + 7 j + j^2) (46 + 28 j + j^2) (-1 + 47 j + j^2) (45 + 71 j + j^2)$$

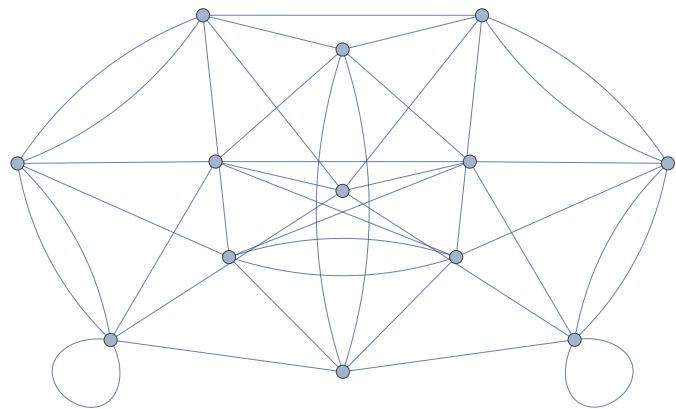
$l = 2$



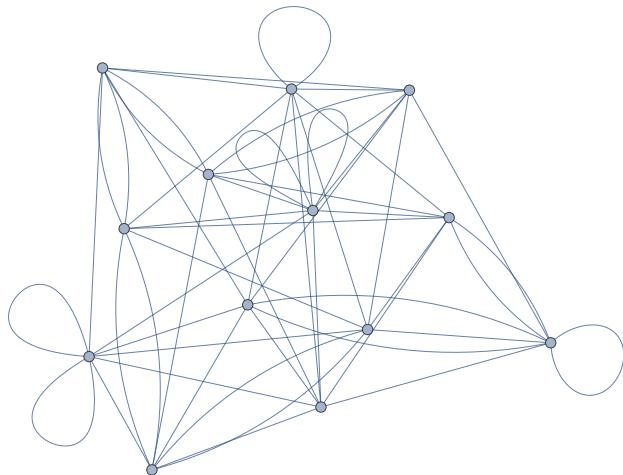
$l = 3$



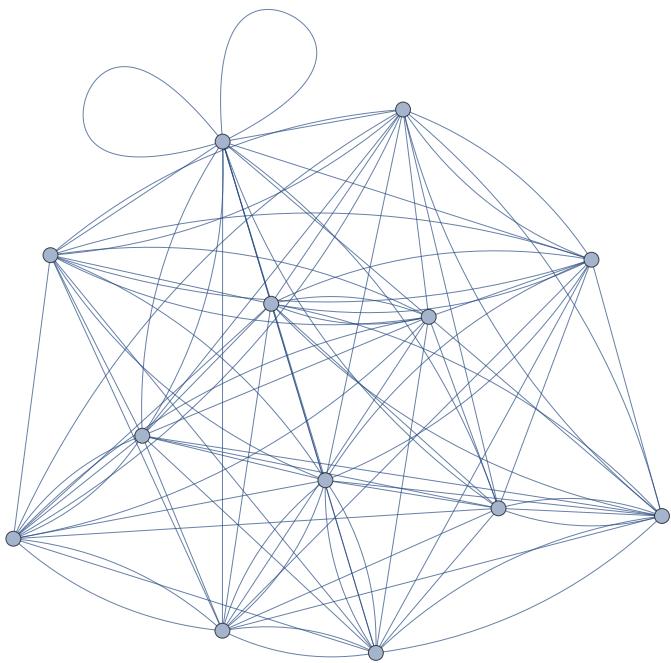
$l = 5$



$l = 7$



$l = 13$

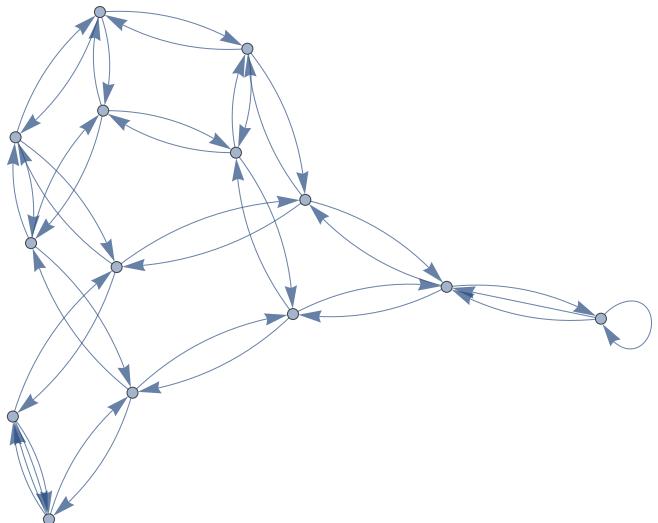


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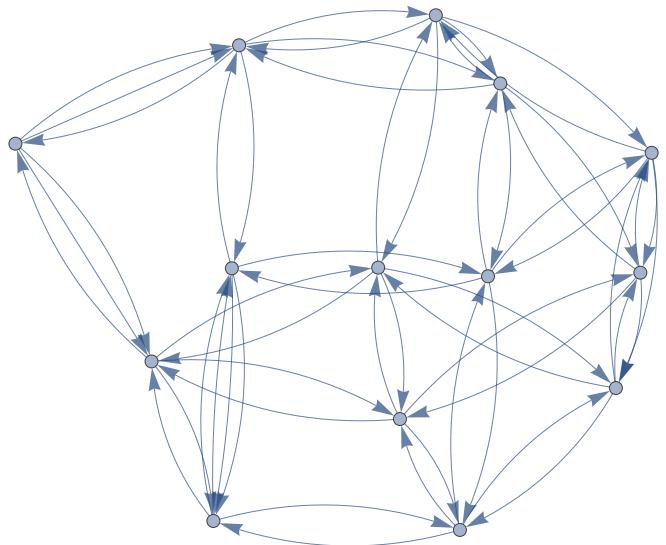
p = 163

$$\begin{aligned} & (-1728 + j) (36 + j) (21 - 44 j + j^2) (27 - 38 j + j^2) \\ & (-53 - 11 j + j^2) (78 + 24 j + j^2) (-28 + 70 j + j^2) (61 + 72 j + j^2) \end{aligned}$$

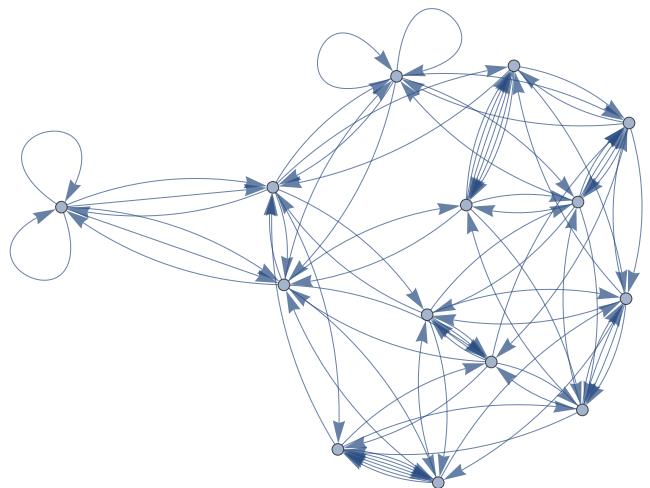
l = 2



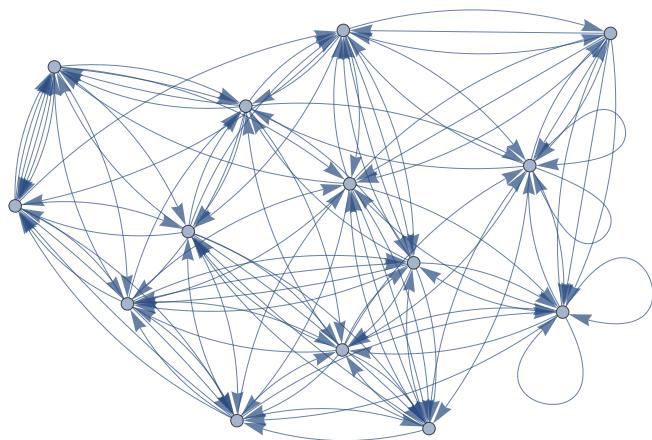
l = 3



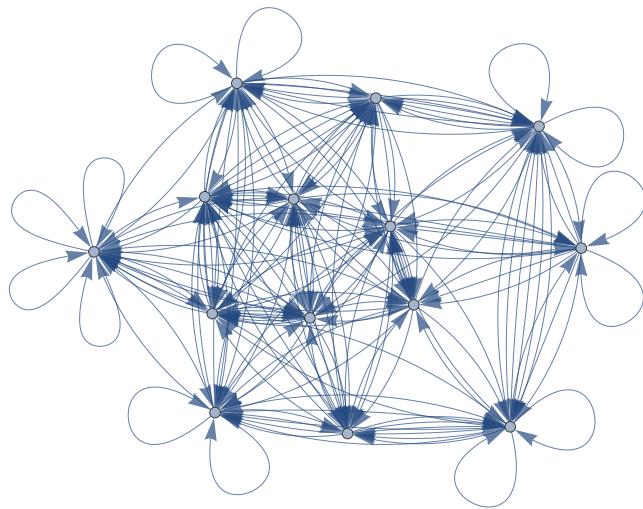
$l = 5$



$l = 7$



$l = 13$

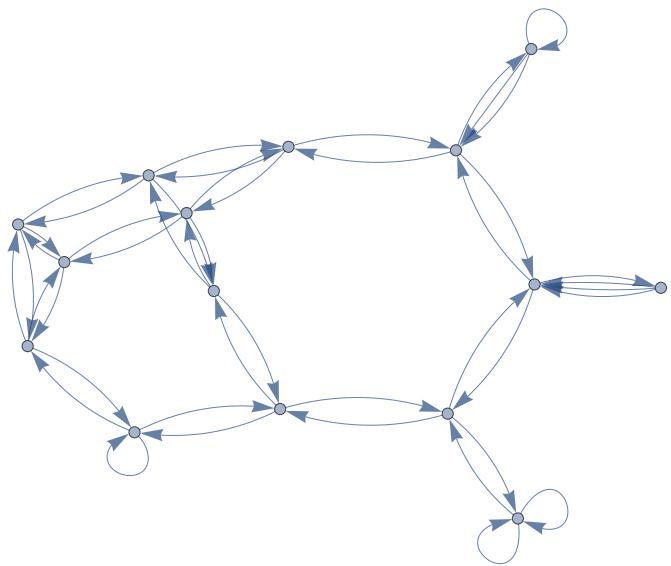


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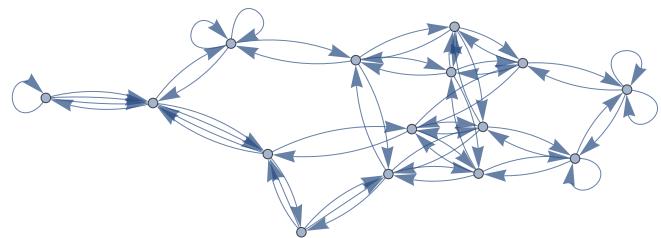
$p = 167$

$$\begin{aligned} & (-1728 + j) \ (-59 + j) \ (-30 + j) \ (-27 + j) \ (-15 + j) \ j \\ & (16 + j) \ (35 + j) \ (36 + j) \ (55 + j) \ (78 + j) \ (45 - 9j + j^2) \ (-44 + 9j + j^2) \end{aligned}$$

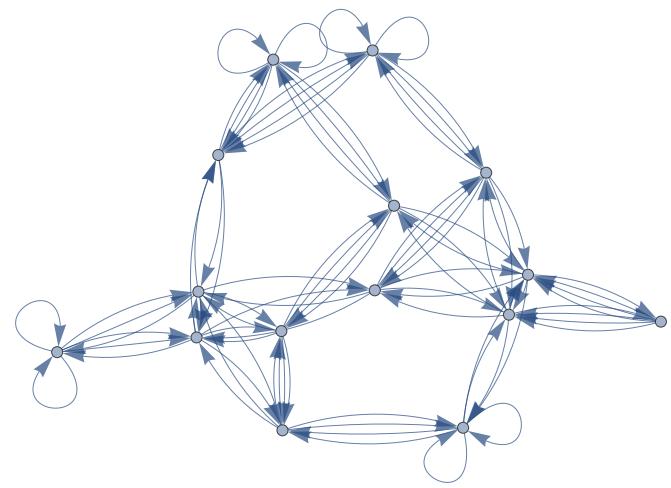
$l = 2$



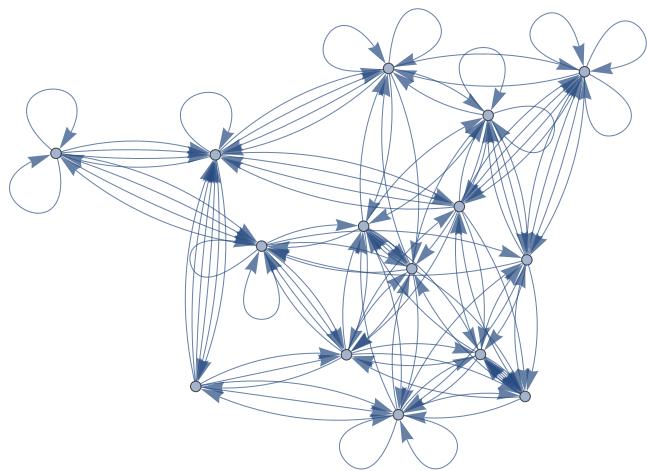
$l = 3$



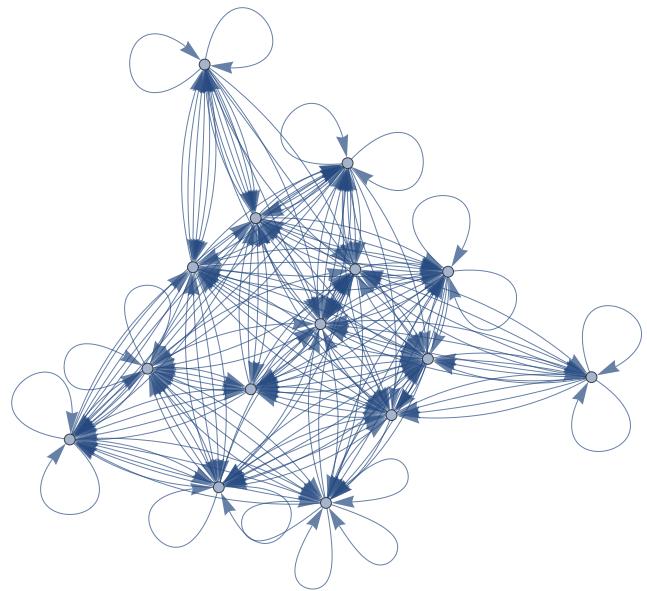
$l = 5$



$l = 7$



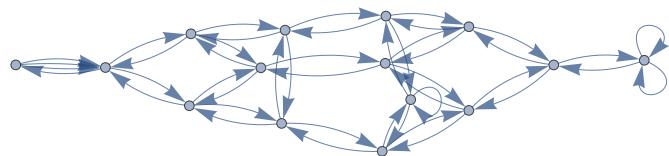
$l = 13$



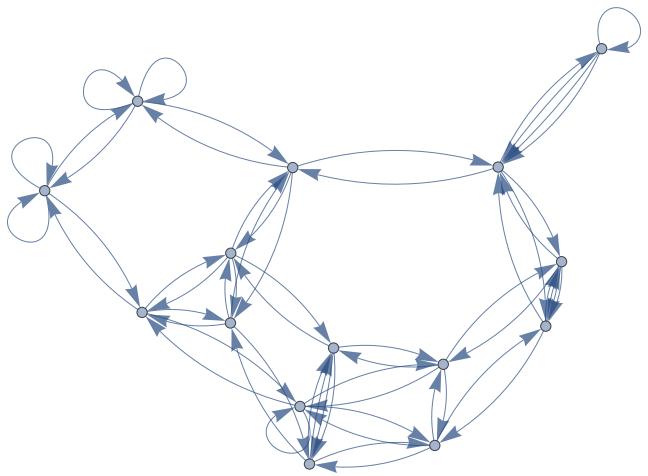
$p = 173$

$$(-85 + j) (-42 + j) (-24 + j) (-17 + j) j (14 + j) \\ (71 + j) (2 - 65 j + j^2) (85 - 62 j + j^2) (38 - 55 j + j^2) (-40 - 21 j + j^2)$$

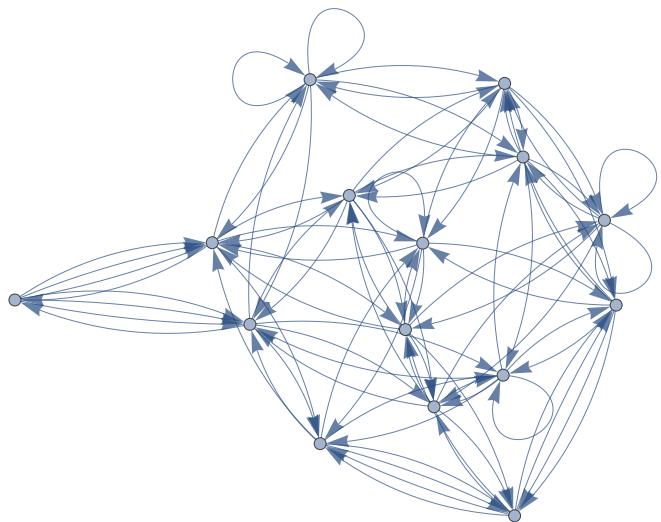
$l = 2$



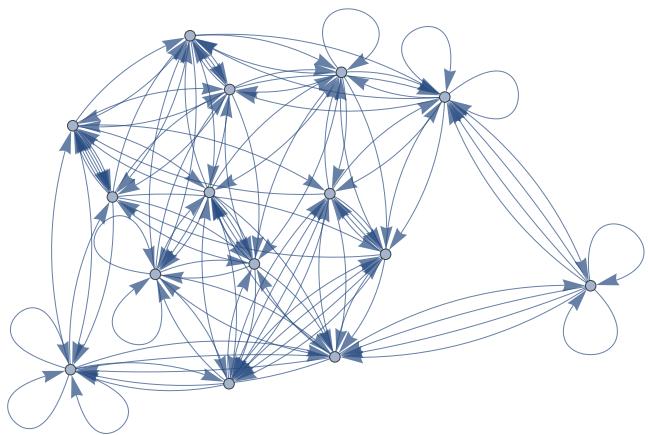
$l = 3$



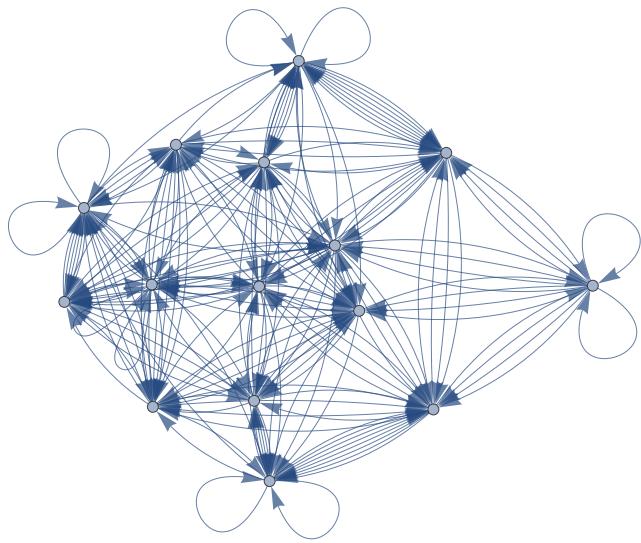
$l = 5$



$l = 7$



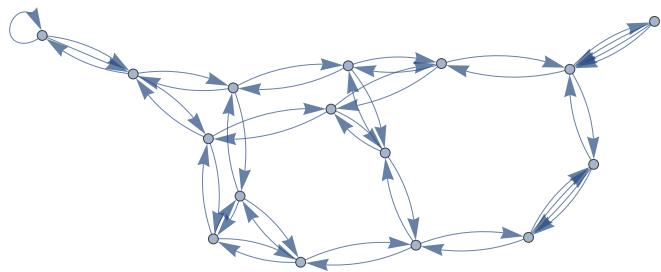
$l = 13$



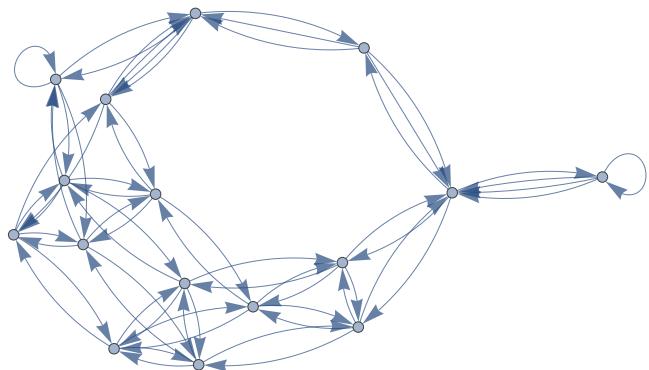
$p = 179$

$$(-1728 + j) (-61 + j) (-35 + j) (-22 + j) j (8 + j) (39 + j) \\ (58 + j) (59 + j) (67 + j) (-87 - 39 j + j^2) (-51 - 35 j + j^2) (4 - 10 j + j^2)$$

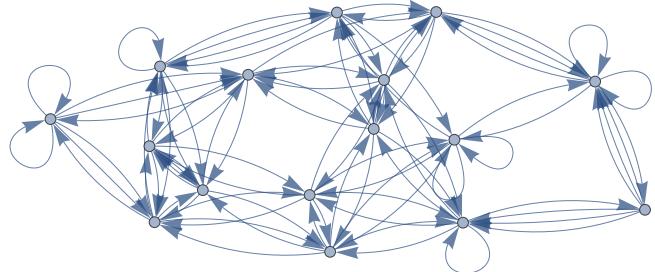
$l = 2$



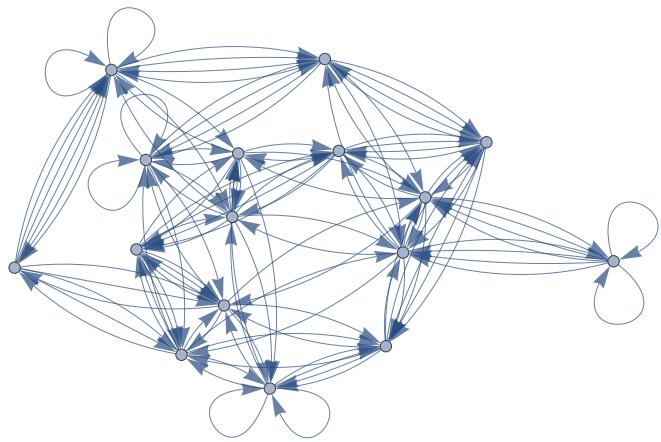
$l = 3$



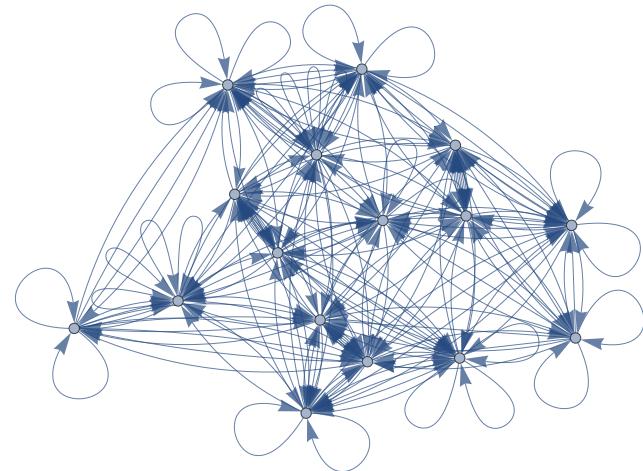
$l = 5$



$l = 7$



$l = 13$

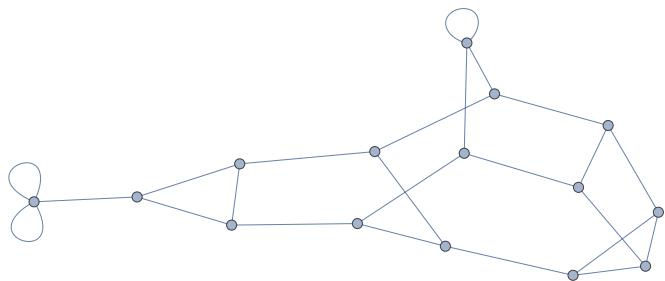



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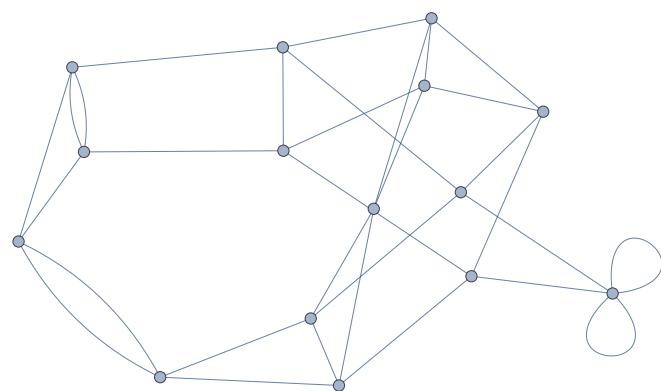
$p = 181$

$$\begin{aligned} & (-64 + j) \ ( -36 + j) \ ( 6 + j) \ ( 8 + j) \ ( 35 + j) \ ( -22 - 72 j + j^2) \\ & ( -31 - 33 j + j^2) \ ( -30 - 32 j + j^2) \ ( 86 - 6 j + j^2) \ ( -27 + 73 j + j^2) \end{aligned}$$

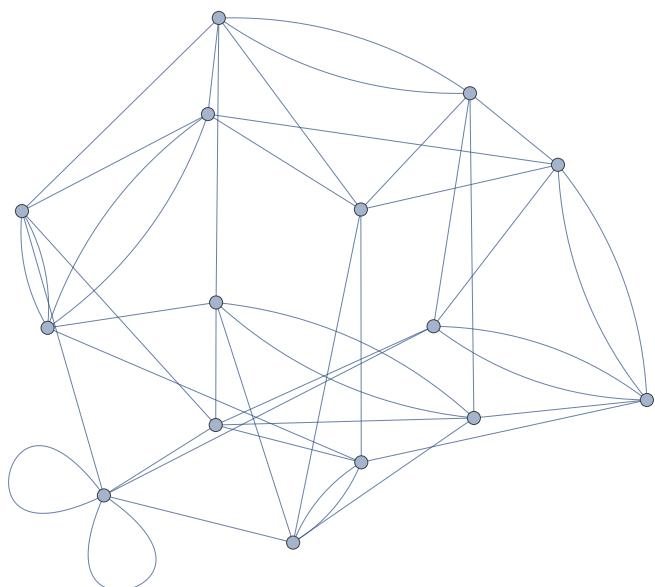
$l = 2$



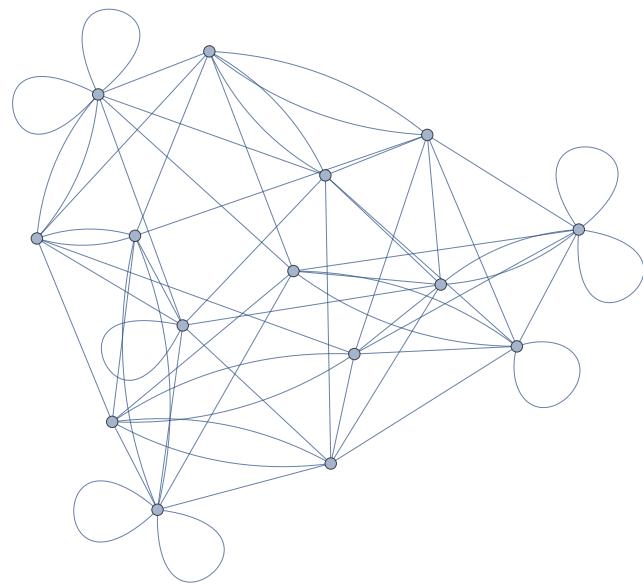
$l = 3$



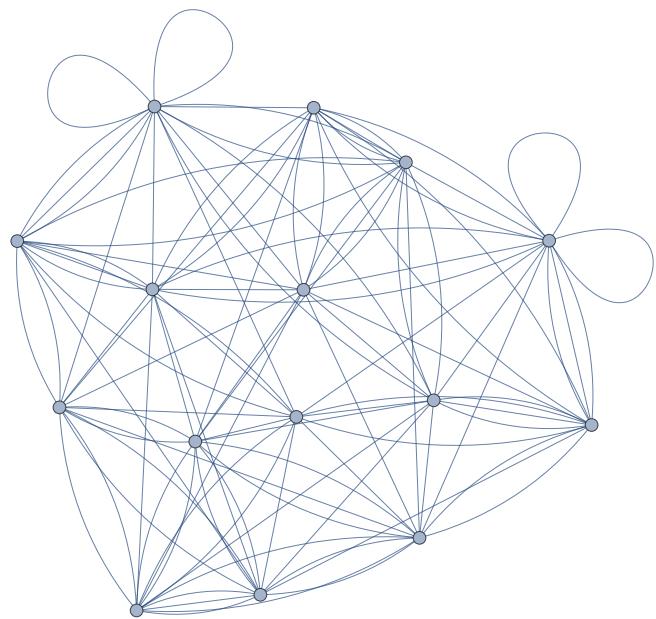
$l = 5$



$l = 7$



$l = 13$

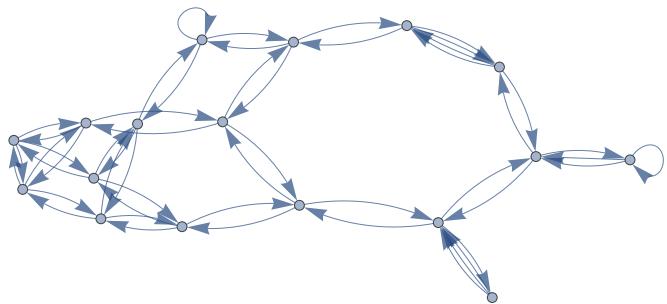


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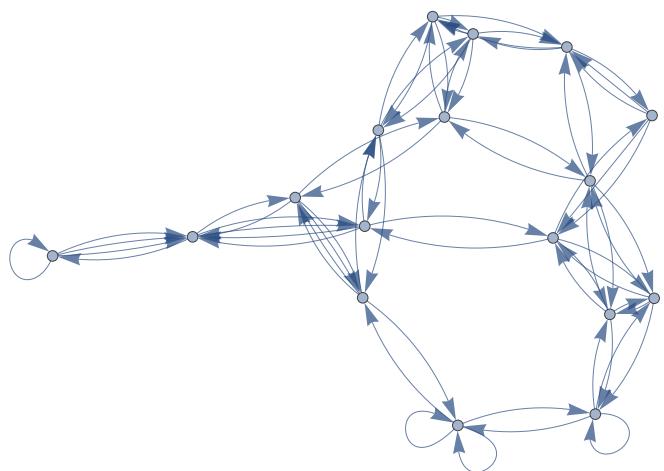
$p = 191$

$$\begin{aligned} & (-1728 + j) \ (-66 + j) \ (-55 + j) \ (-46 + j) \ (-41 + j) \ (-16 + j) \ j \ (15 + j) \\ & (22 + j) \ (41 + j) \ (53 + j) \ (84 + j) \ (85 + j) \ (-93 - 61 j + j^2) \ (76 - 46 j + j^2) \end{aligned}$$

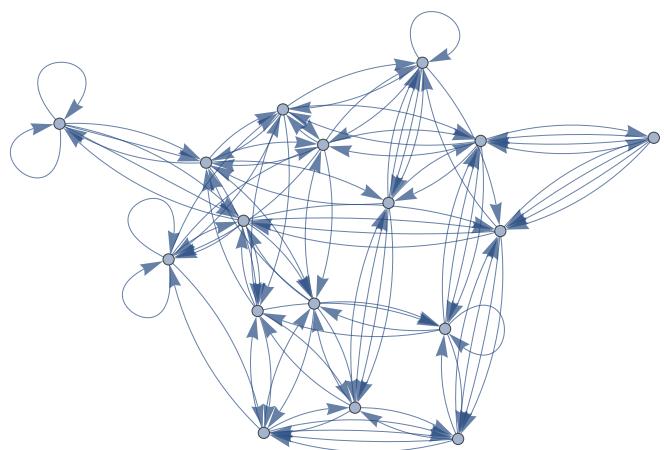
$l = 2$



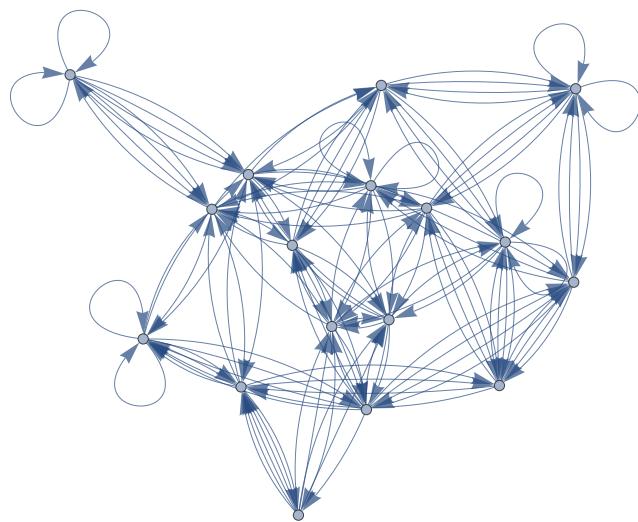
$l = 3$



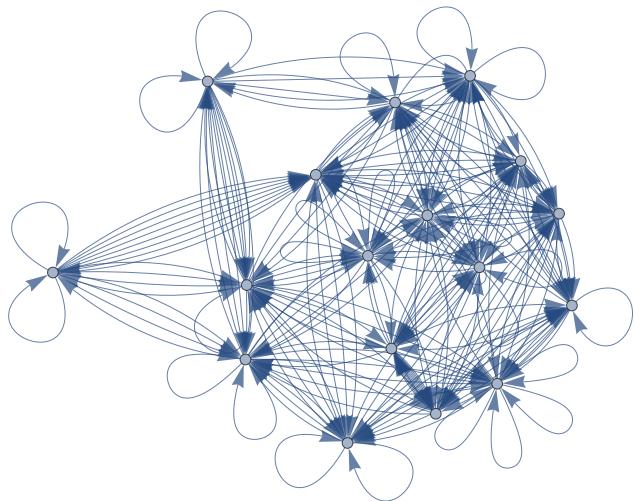
$l = 5$



$l = 7$



$l = 13$

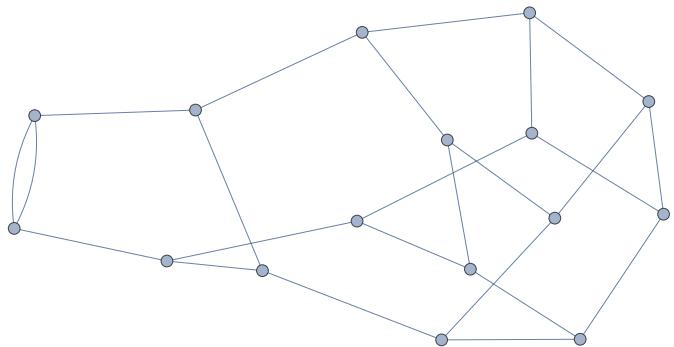


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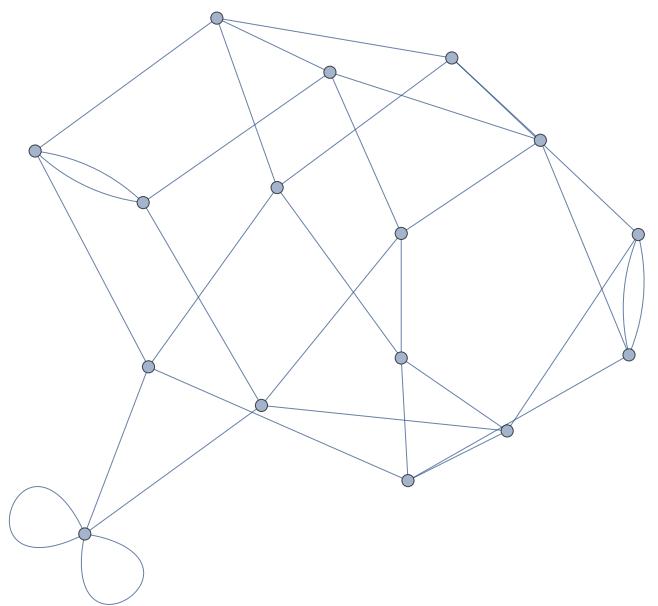
$p = 193$

$$\begin{aligned} & (-42 + j) \ (24 + j) \ (-94 - 81 j + j^2) \ (1 - 45 j + j^2) \ (-1 - 43 j + j^2) \\ & (-24 - 35 j + j^2) \ (-50 - 34 j + j^2) \ (71 + 33 j + j^2) \ (-27 + 90 j + j^2) \end{aligned}$$

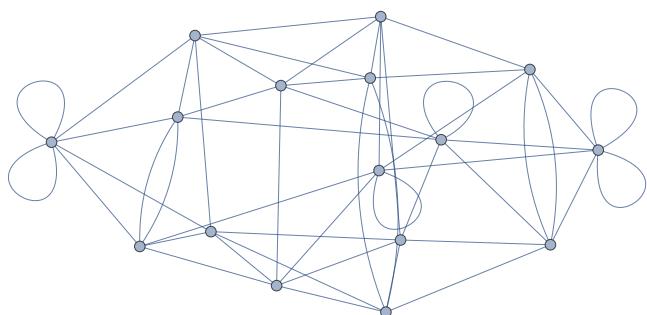
$l = 2$



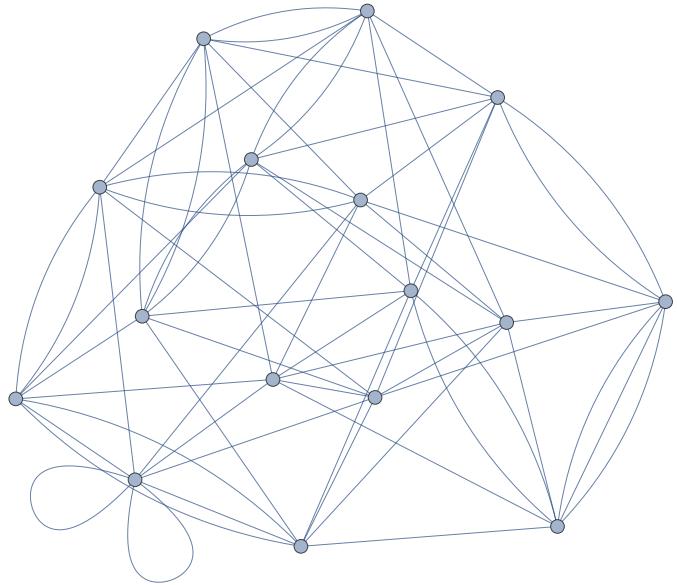
$l = 3$



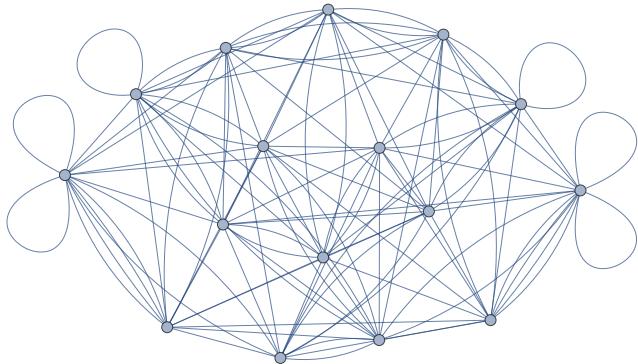
$l = 5$



$l = 7$



$l = 13$

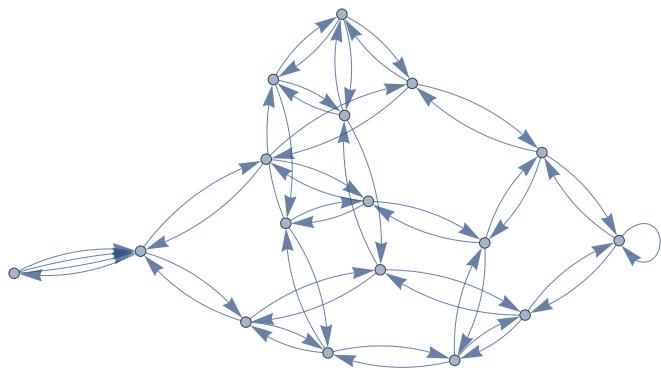


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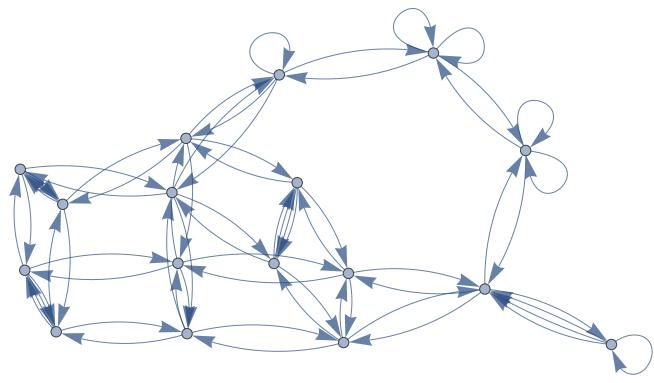
$p = 197$

$$\begin{aligned} & (-72 + j) \ (-22 + j) \ j \ (66 + j) \ (77 + j) \ (63 - 84 j + j^2) \\ & (53 - 48 j + j^2) \ (-88 - 29 j + j^2) \ (8 + 18 j + j^2) \ (-1 + 75 j + j^2) \ (-13 + 79 j + j^2) \end{aligned}$$

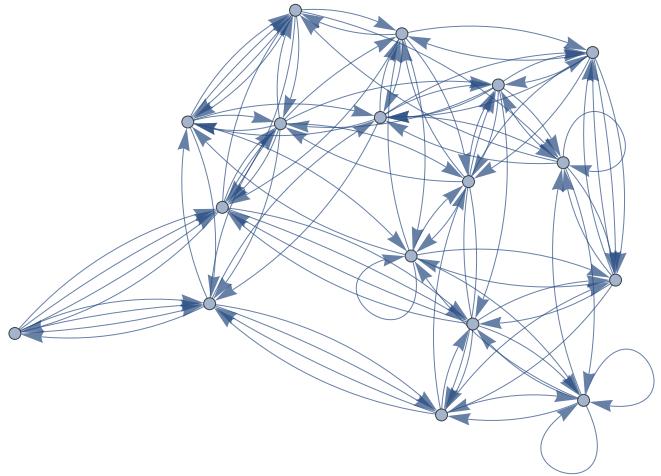
$l = 2$



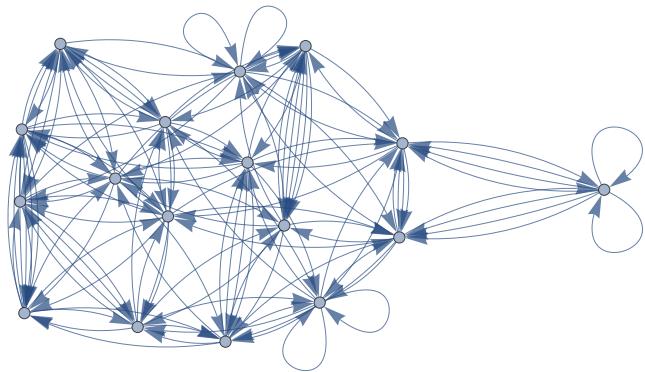
$l = 3$



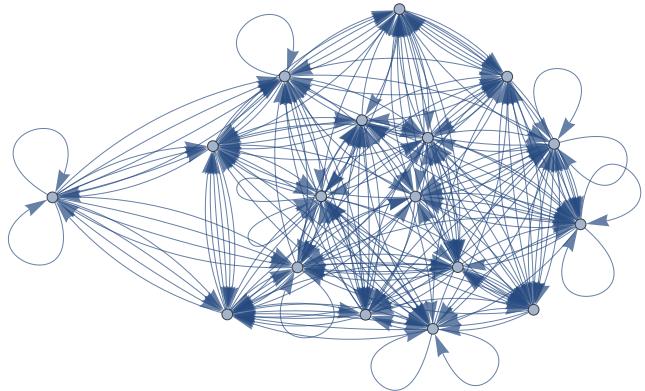
$l = 5$



$l = 7$



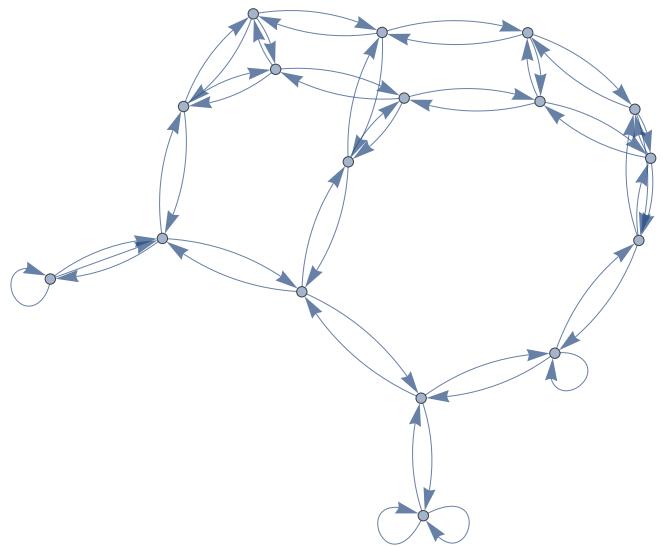
$l = 13$



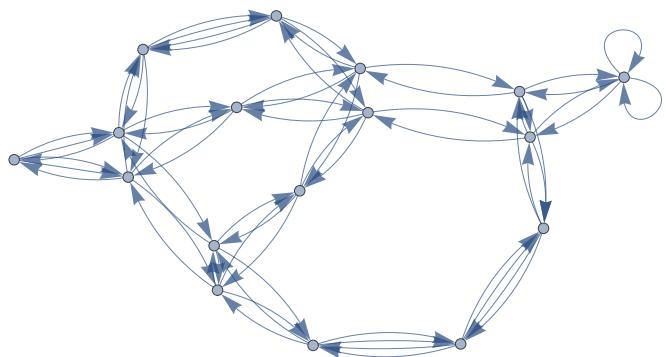
$p = 199$

$$\begin{aligned} & (-1728 + j) \ (-98 + j) \ (-90 + j) \ (-64 + j) \ (-61 + j) \ (-40 + j) \ (-8 + j) \\ & (52 + j) \ (59 + j) \ (74 + 16j + j^2) \ (-76 + 20j + j^2) \ (-88 + 44j + j^2) \ (5 + 99j + j^2) \end{aligned}$$

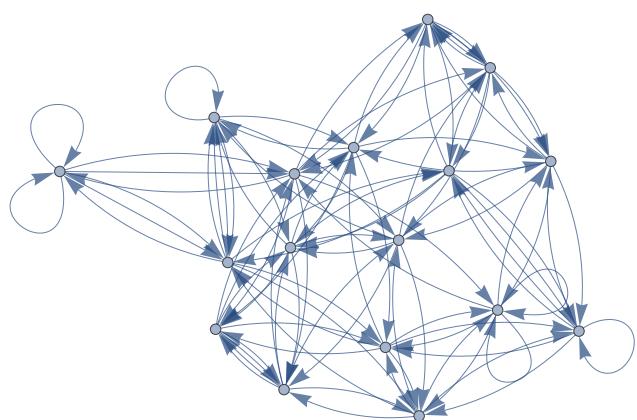
$l = 2$



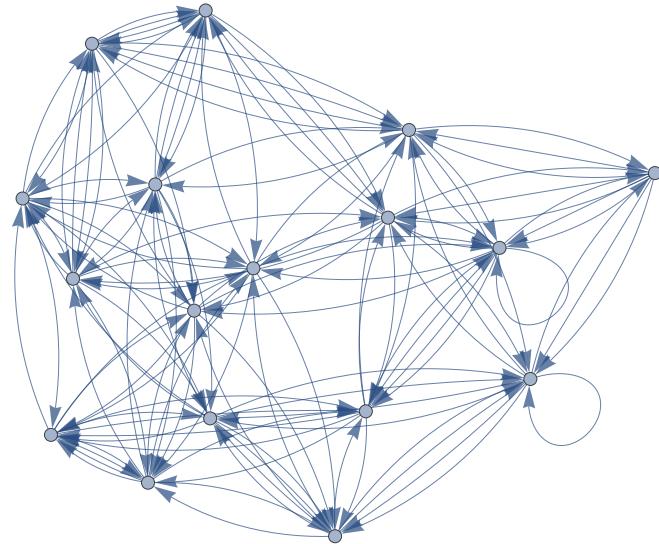
$l = 3$



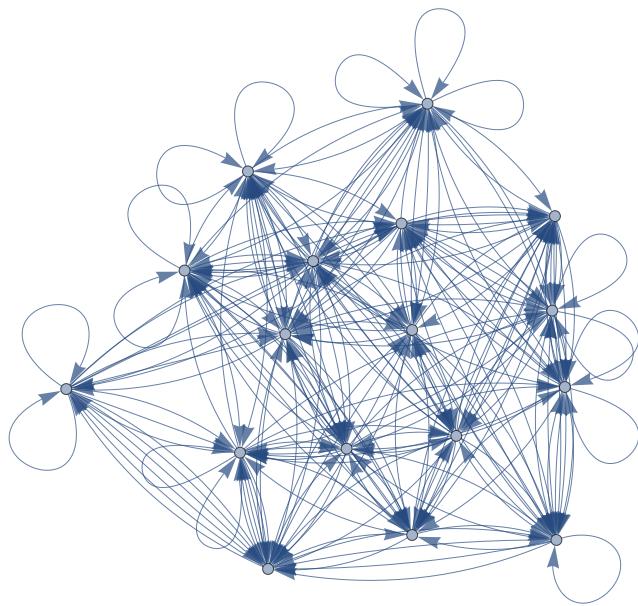
$l = 5$



$l = 7$



$l = 13$

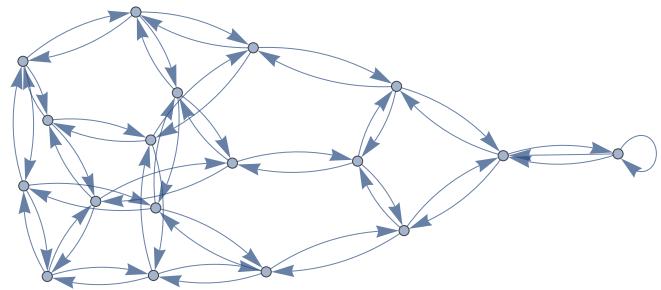


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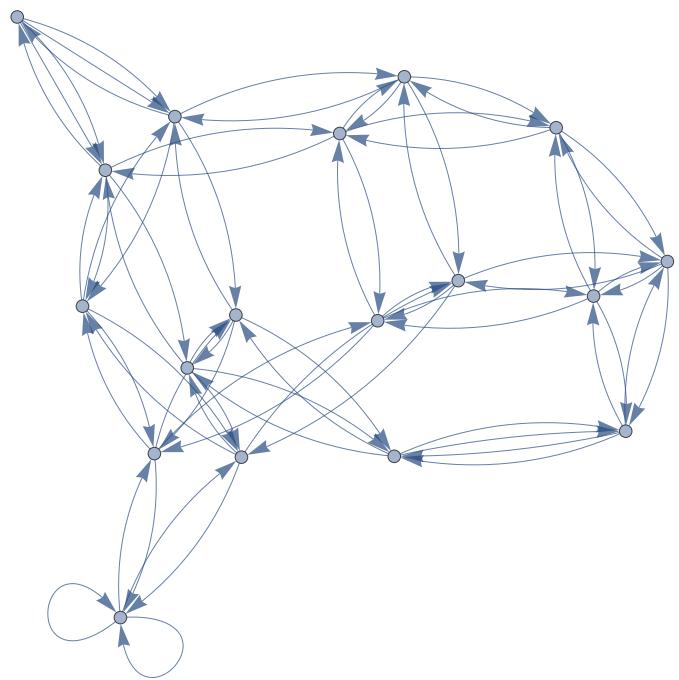
$p = 211$

$$\begin{aligned} & (-1728 + j) \ (-82 + j) \ (-28 + j) \ (13 + j) \ (63 + j) \ (97 + j) \ (-5 - 90j + j^2) \\ & (88 - 59j + j^2) \ (-65 - 49j + j^2) \ (86 - 27j + j^2) \ (97 - 25j + j^2) \ (23 + 56j + j^2) \end{aligned}$$

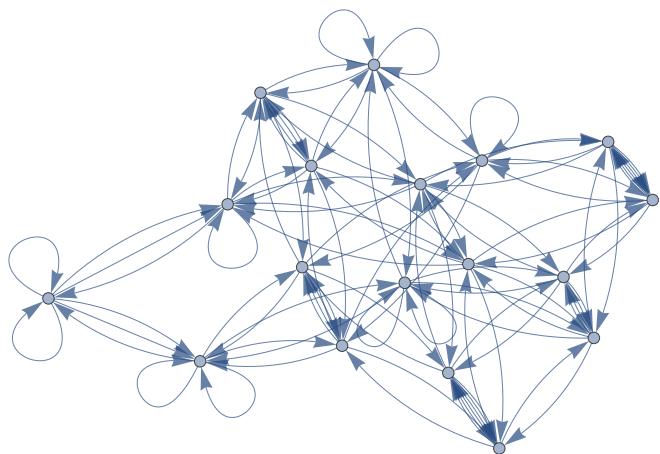
$l = 2$



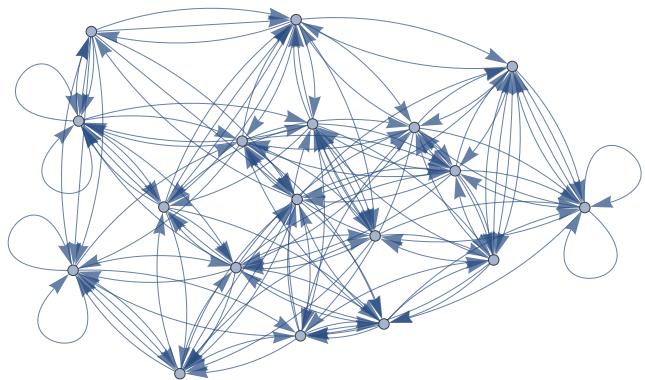
$l = 3$



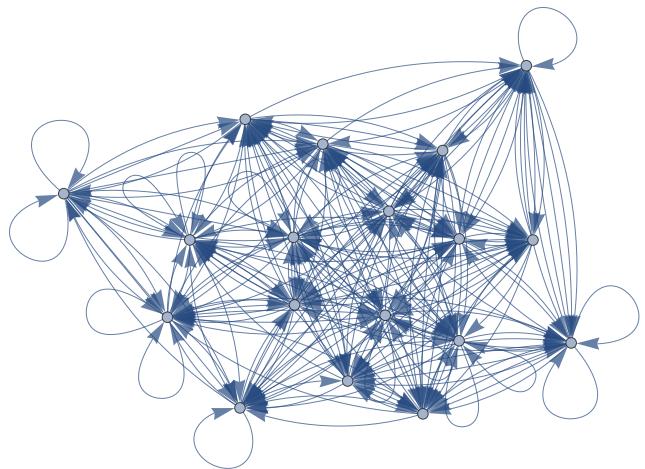
$l = 5$



$l = 7$



$l = 13$

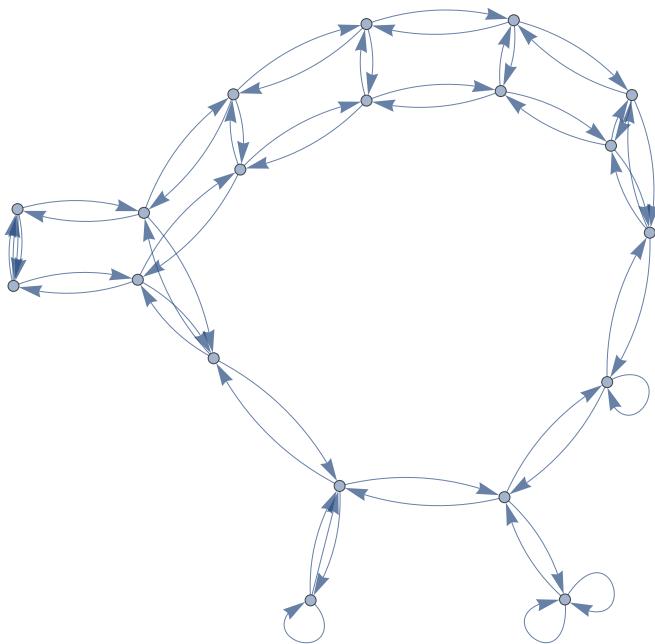


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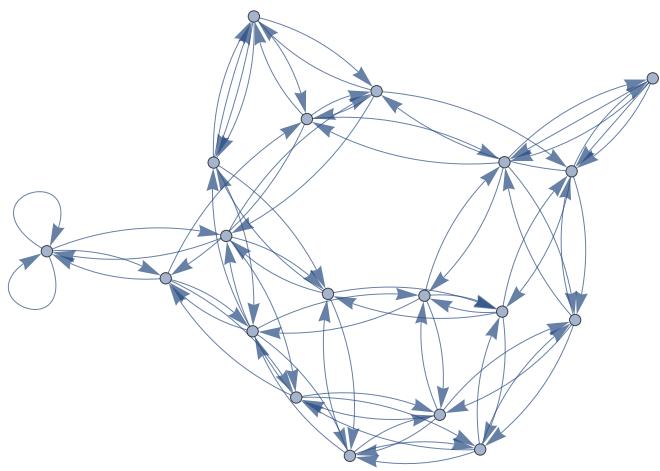
$p = 223$

$$\begin{aligned} & (-1728 + j) \ ( -49 + j) \ (2 + j) \ (13 + j) \ (28 + j) \ (30 + j) \ (95 + j) \ (95 - 86 j + j^2) \\ & (49 - 49 j + j^2) \ (1 - 26 j + j^2) \ (7 - 25 j + j^2) \ (54 + 12 j + j^2) \ (-30 + 87 j + j^2) \end{aligned}$$

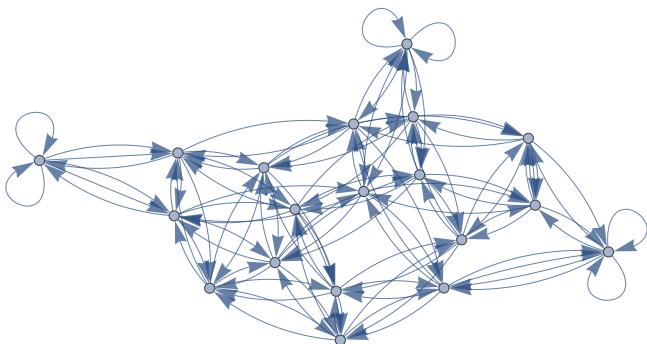
$l = 2$



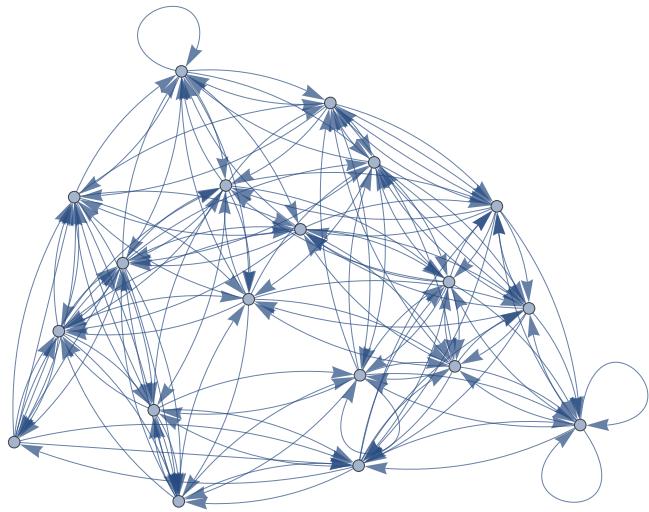
$l = 3$



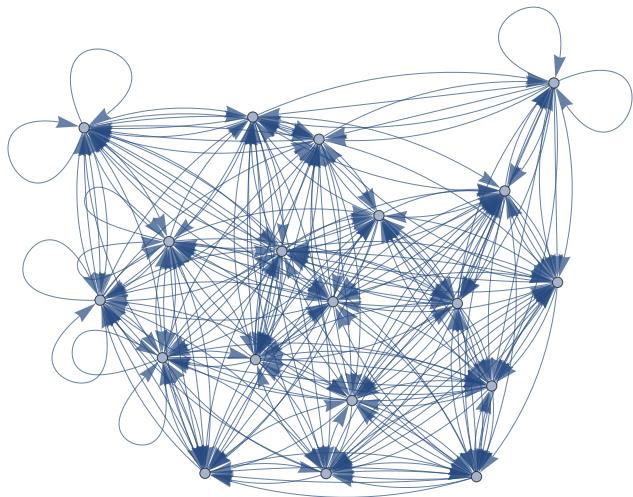
$l = 5$



$l = 7$



$l = 13$

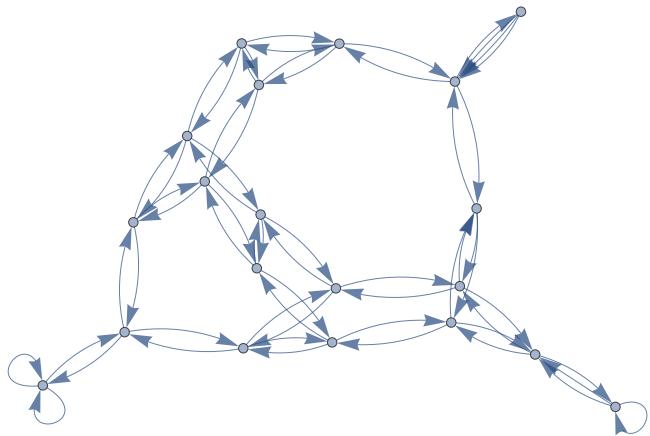


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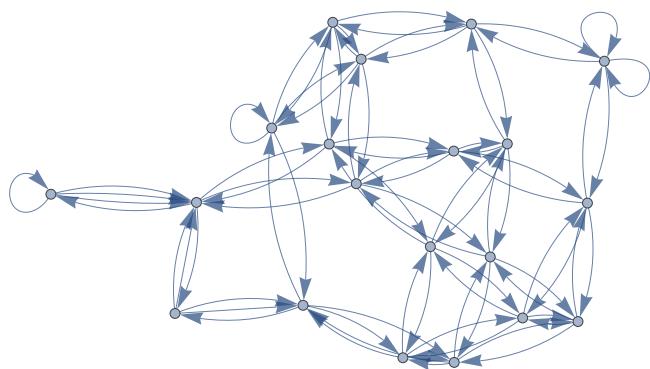
$p = 227$

$$(-1728 + j) (-110 + j) (-30 + j) j (26 + j) (36 + j) (67 + j) (80 + j) (95 + j) (113 + j) \\ (-19 - 59 j + j^2) (-41 - 4 j + j^2) (-64 + 73 j + j^2) (63 + 81 j + j^2) (-26 + 102 j + j^2)$$

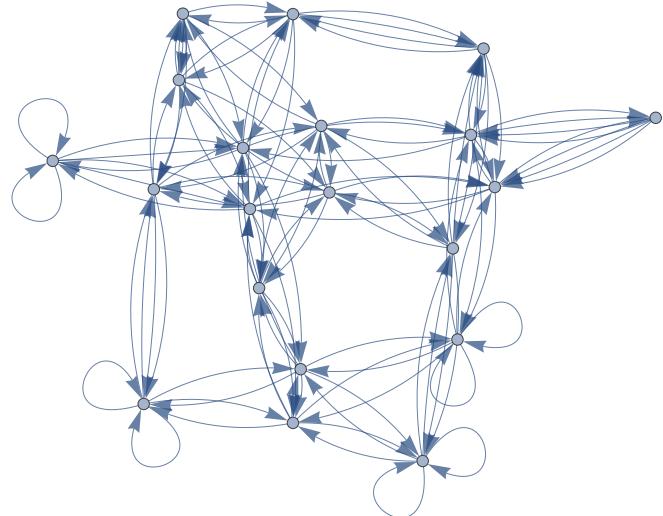
$l = 2$



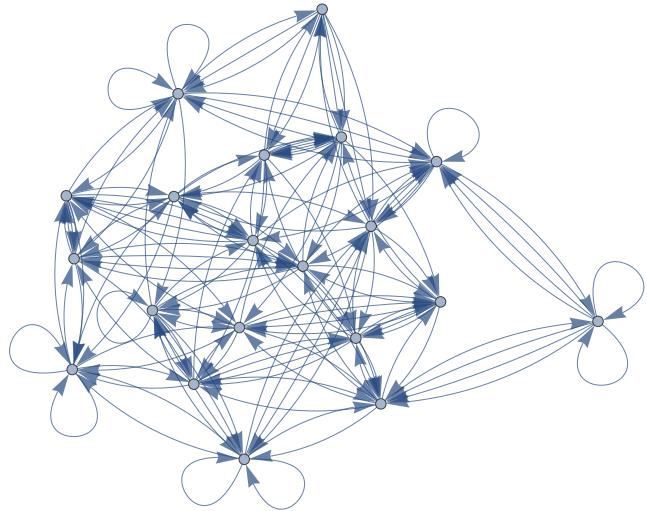
$l = 3$



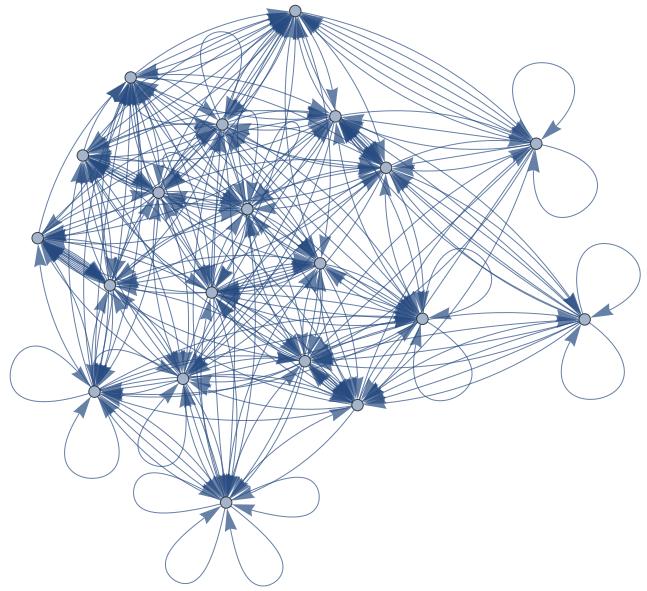
$l = 5$



$l = 7$



$l = 13$

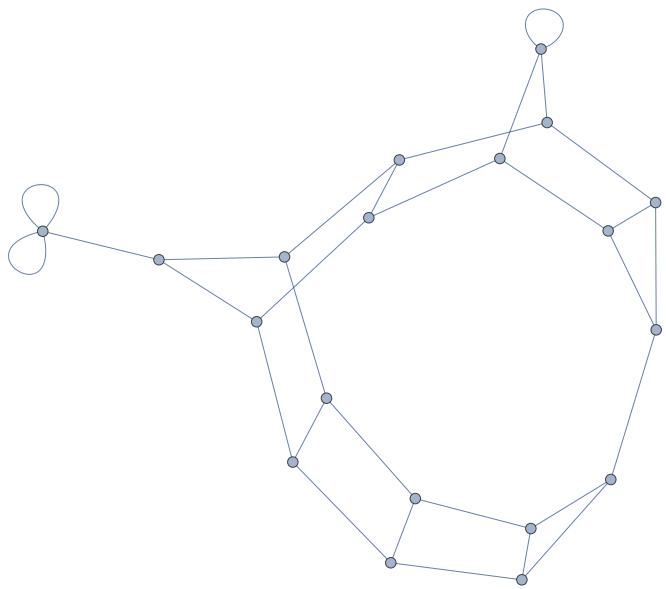


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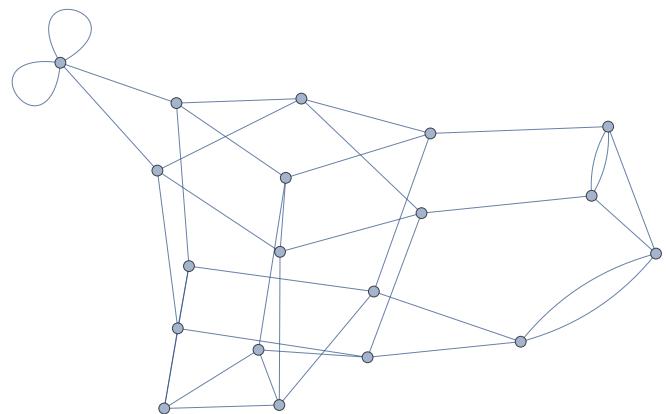
$p = 229$

$$\begin{aligned} & (-93 + j) \ (-60 + j) \ (-27 + j) \ (15 + j) \ (57 + j) \ (16 - 67 j + j^2) \ (84 + 14 j + j^2) \\ & (2 + 20 j + j^2) \ (86 + 32 j + j^2) \ (-107 + 51 j + j^2) \ (-54 + 55 j + j^2) \ (-13 + 63 j + j^2) \end{aligned}$$

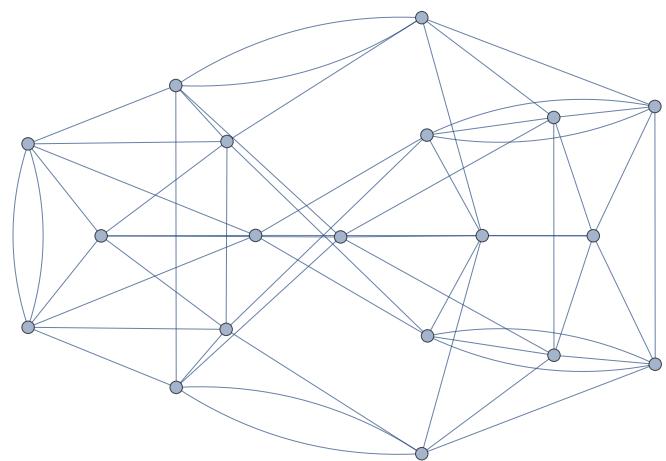
$l = 2$



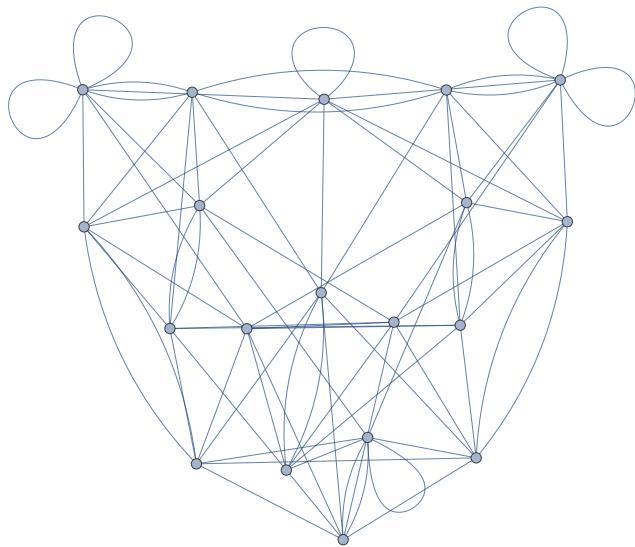
$l = 3$



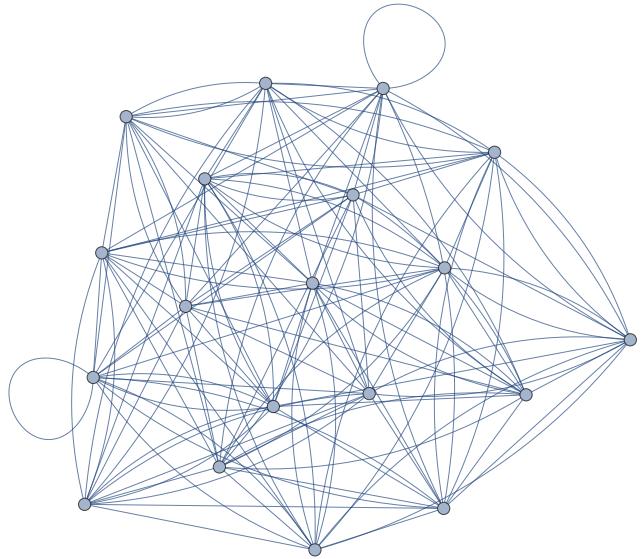
$l = 5$



$l = 7$



$l = 13$

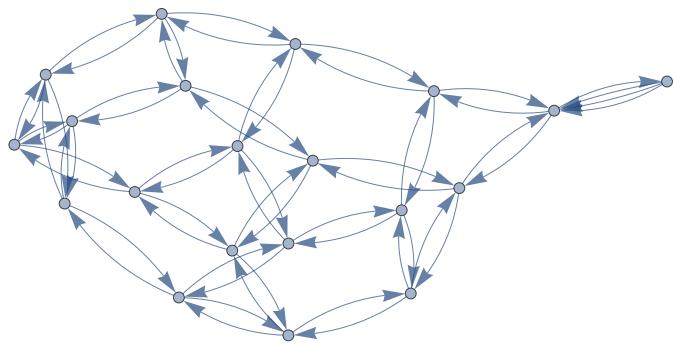


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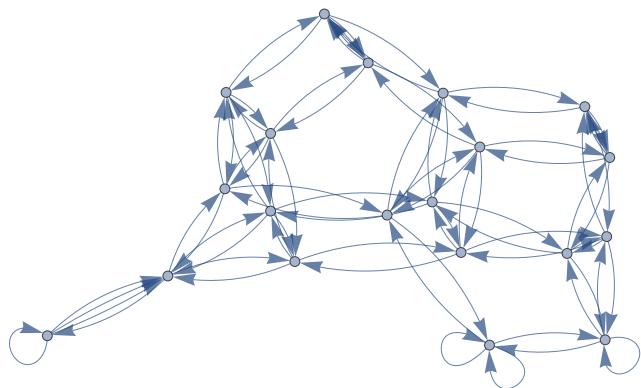
$p = 233$

$$(-85 + j) (-11 + j) j (46 + j) (50 + j) (56 + j) (62 - 86 j + j^2) (-17 - 71 j + j^2) (-62 - 64 j + j^2) (109 + 25 j + j^2) (-94 + 55 j + j^2) (57 + 64 j + j^2) (81 + 81 j + j^2)$$

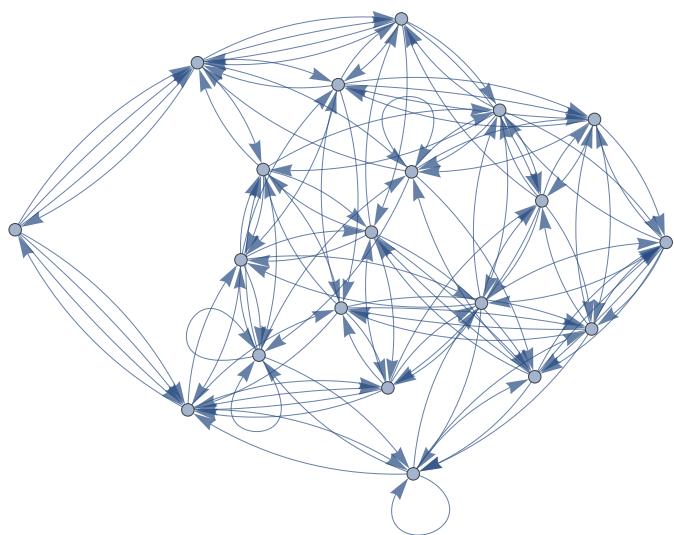
$l = 2$



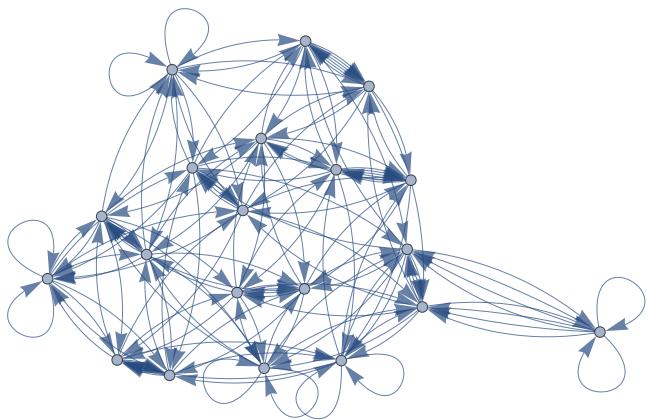
$l = 3$



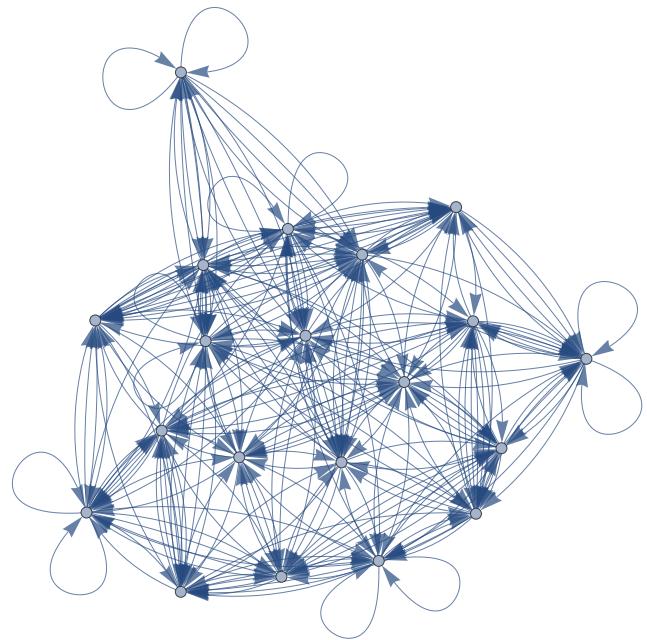
$l = 5$



$l = 7$



$l = 13$

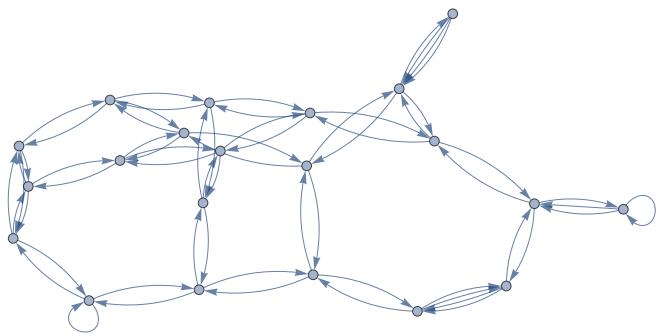


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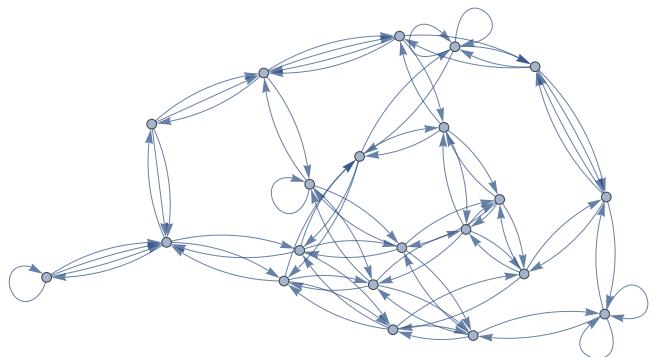
$p = 239$

$$\begin{aligned} & (-1728 + j) \ (-113 + j) \ (-107 + j) \ (-105 + j) \ (-68 + j) \ j \ (4 + j) \ (14 + j) \ (21 + j) \ (22 + j) \\ & (24 + j) \ (25 + j) \ (46 + j) \ (47 + j) \ (54 + j) \ (59 - 43 j + j^2) \ (86 + 51 j + j^2) \ (-59 + 96 j + j^2) \end{aligned}$$

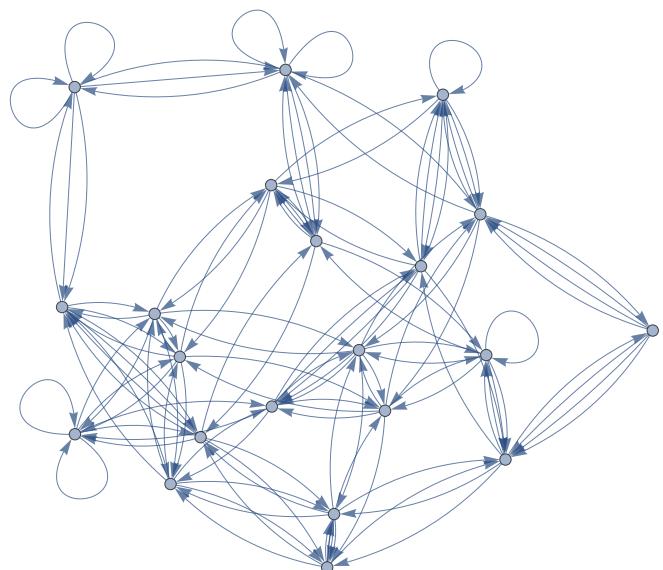
$l = 2$



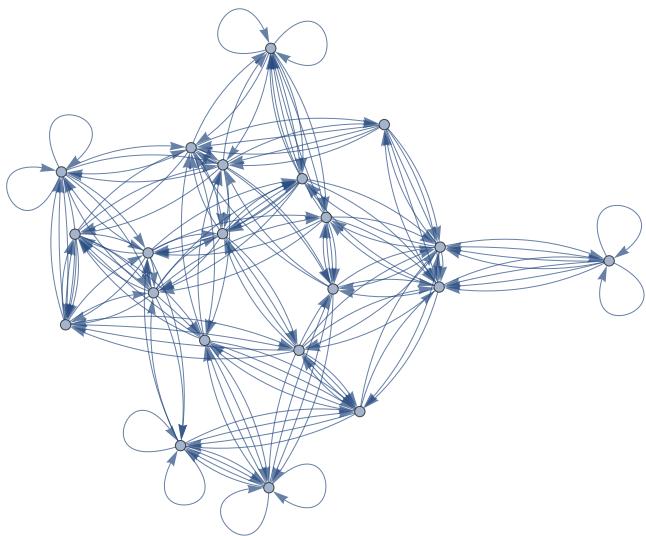
$l = 3$



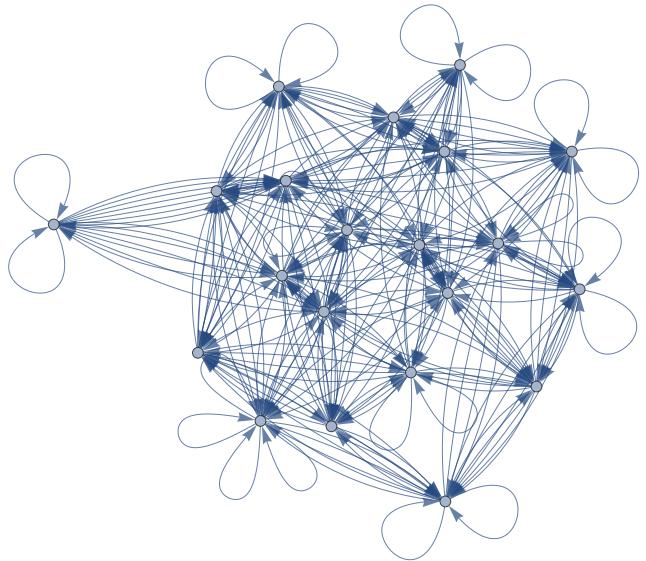
$l = 5$



$l = 7$



$l = 13$

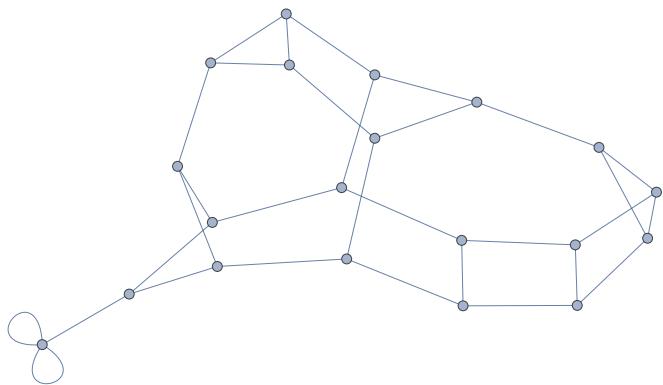


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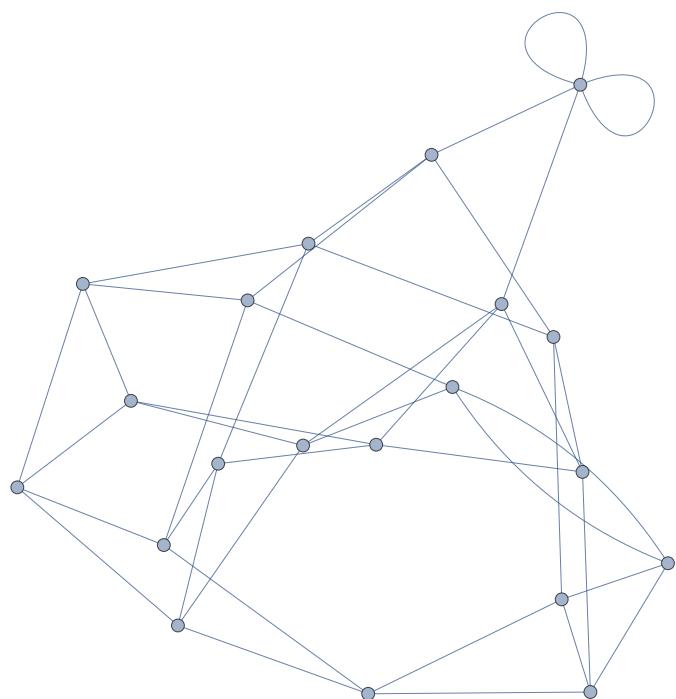
$p = 241$

$$\begin{aligned} & (-93 + j) \ (-64 + j) \ (-28 + j) \ (-8 + j) \ (1 + j) \ (25 + j) \ (117 - 81 j + j^2) \ (-61 - 75 j + j^2) \\ & (-30 - 35 j + j^2) \ (-85 + 11 j + j^2) \ (44 + 27 j + j^2) \ (79 + 28 j + j^2) \ (25 + 111 j + j^2) \end{aligned}$$

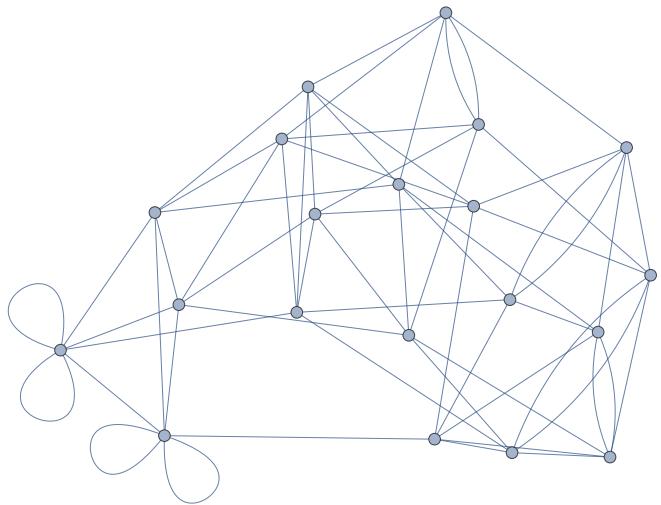
$l = 2$



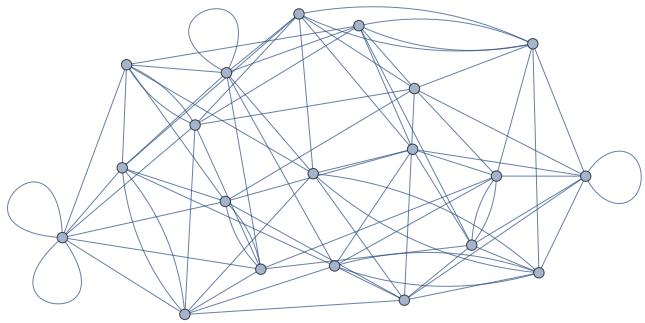
$l = 3$



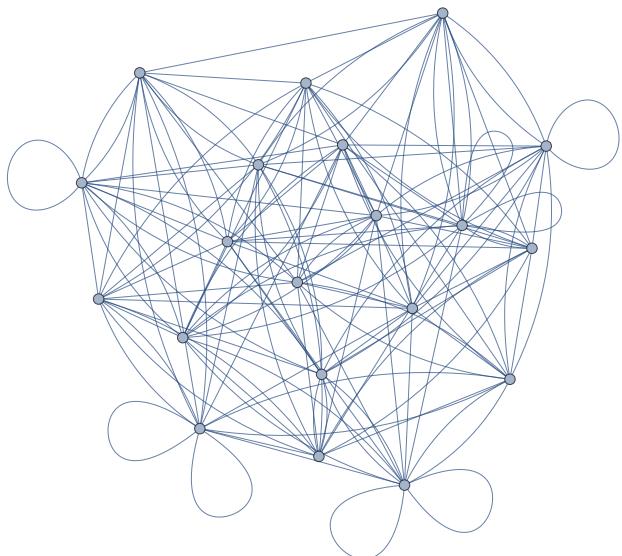
$l = 5$



$l = 7$



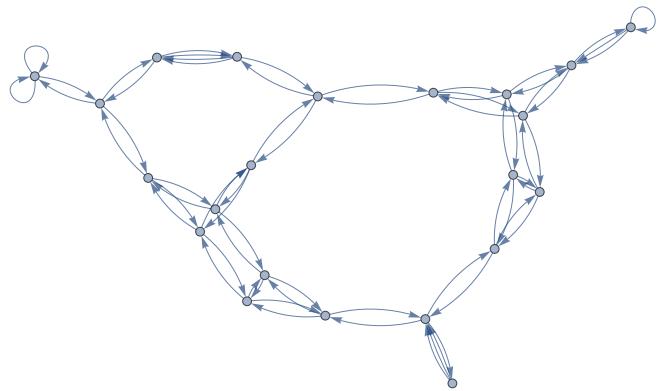
$l = 13$



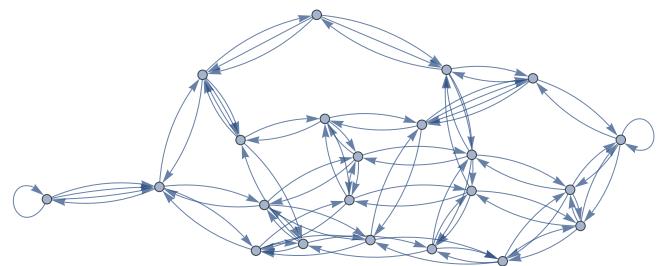
$p = 251$

$$(-1728 + j) (-101 + j) (-64 + j) (-35 + j) (-30 + j) (-24 + j) (-4 + j) j (19 + j) (38 + j) (44 + j) (52 + j) (66 + j) (112 + j) (116 - 105 j + j^2) (-68 - 81 j + j^2) (-81 - 60 j + j^2) (91 + 93 j + j^2)$$

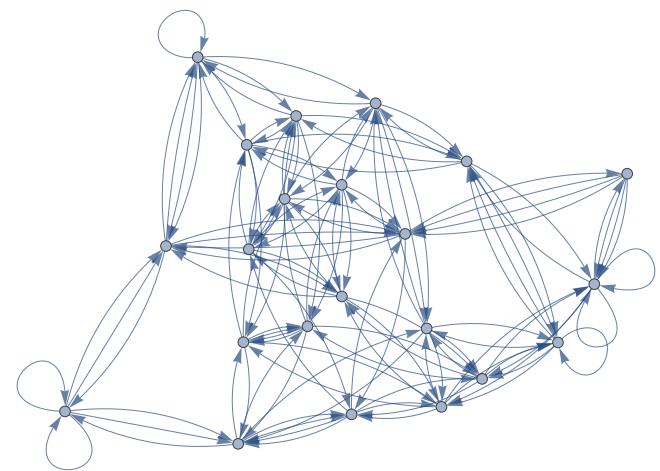
$l = 2$



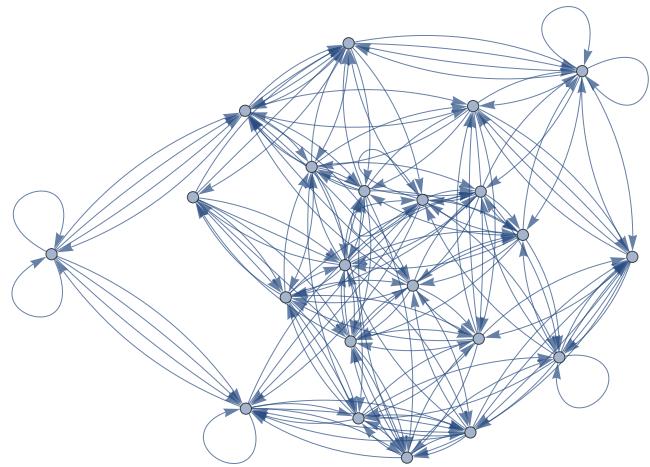
$l = 3$



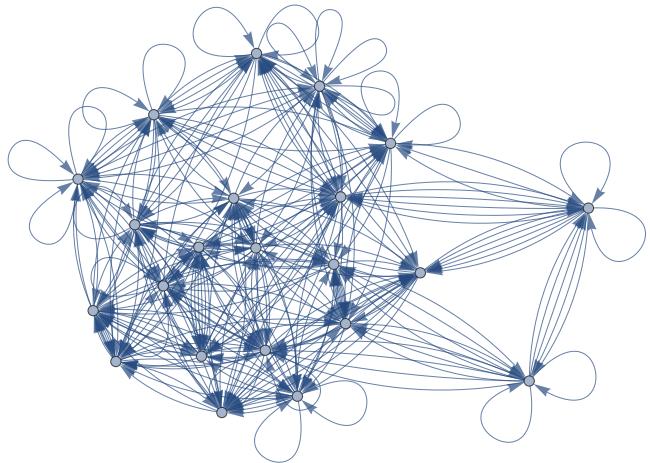
$l = 5$



$l = 7$



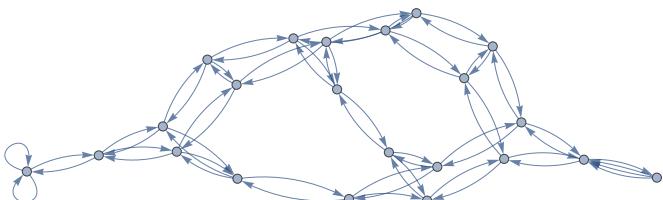
$l = 13$



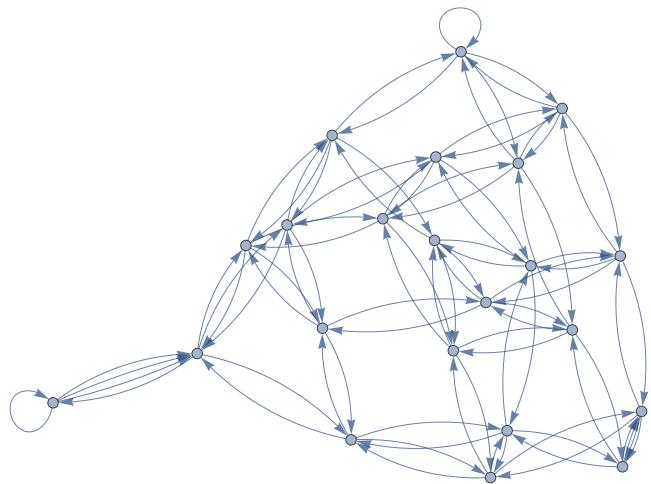
$p = 257$

$$(-121 + j) (-115 + j) (-30 + j) j (8 + j) (34 + j) (59 + j) (118 + j) (-32 - 104 j + j^2) (-6 - 74 j + j^2) \\ (-102 - 68 j + j^2) (-14 - 56 j + j^2) (20 - 52 j + j^2) (87 - 40 j + j^2) (-87 - 13 j + j^2)$$

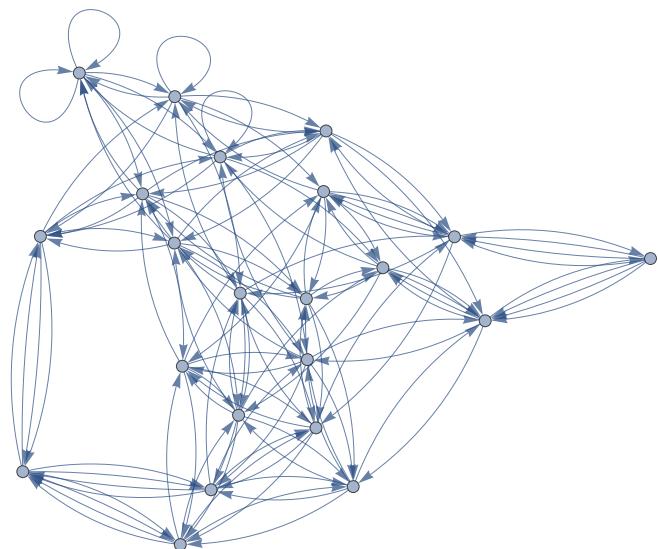
$l = 2$



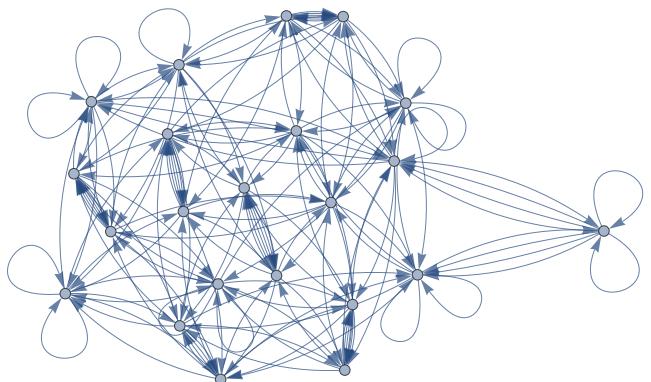
$l = 3$



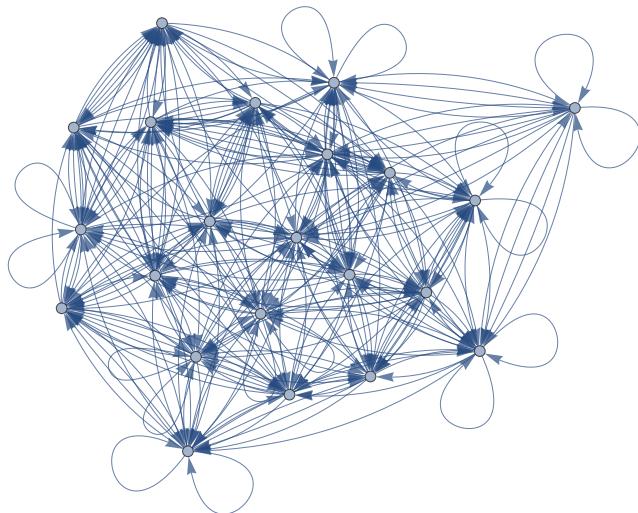
$l = 5$



$l = 7$



$l = 13$

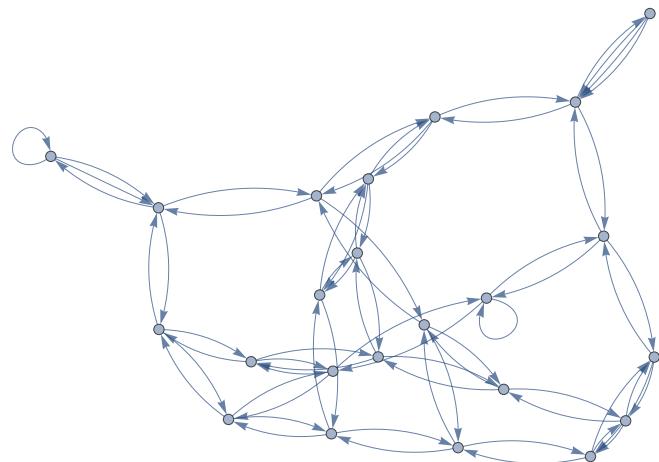


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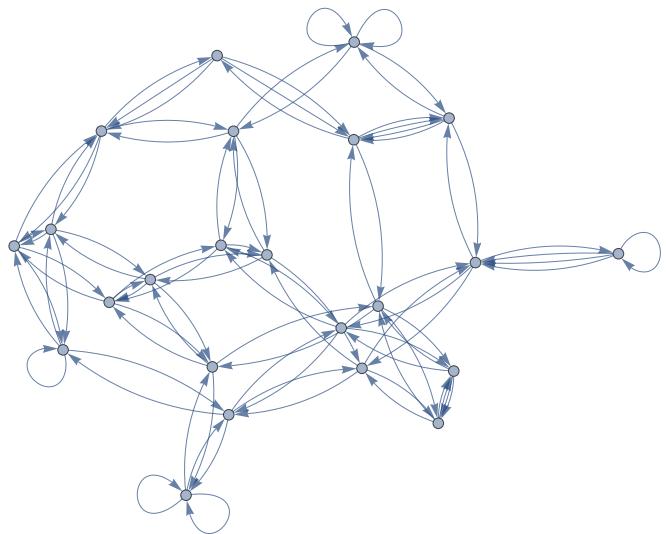
p = 263

$$\begin{aligned} & (-1728 + j) \ (-110 + j) \ (-108 + j) \ (-107 + j) \ (-85 + j) \ (-55 + j) \\ & (-37 + j) \ (-31 + j) \ j \ (55 + j) \ (79 + j) \ (114 + j) \ (122 + j) \ (-35 - 110 j + j^2) \\ & (-126 - 106 j + j^2) \ (80 - 61 j + j^2) \ (65 - 46 j + j^2) \ (121 + 95 j + j^2) \end{aligned}$$

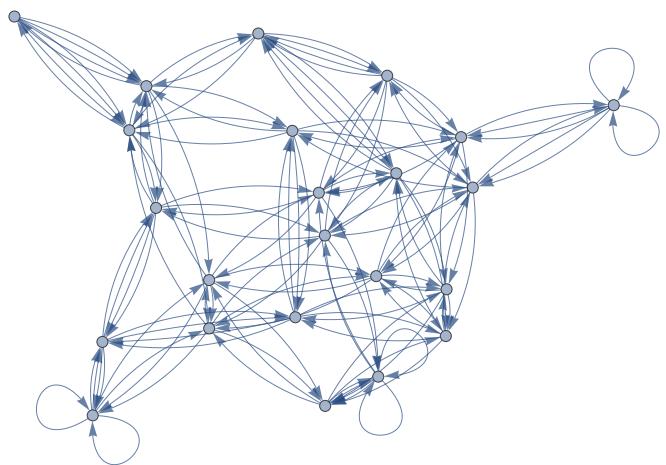
l = 2



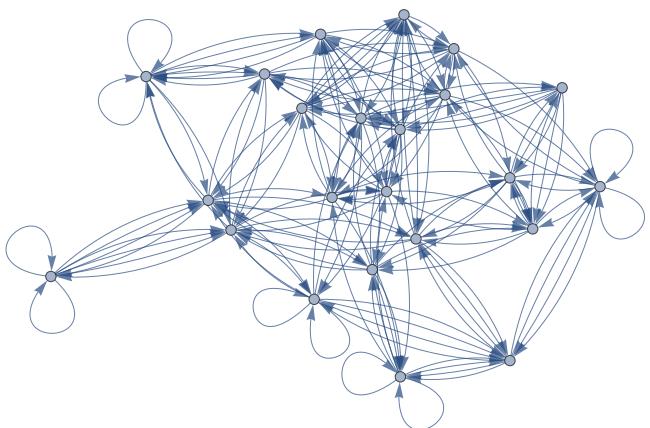
l = 3



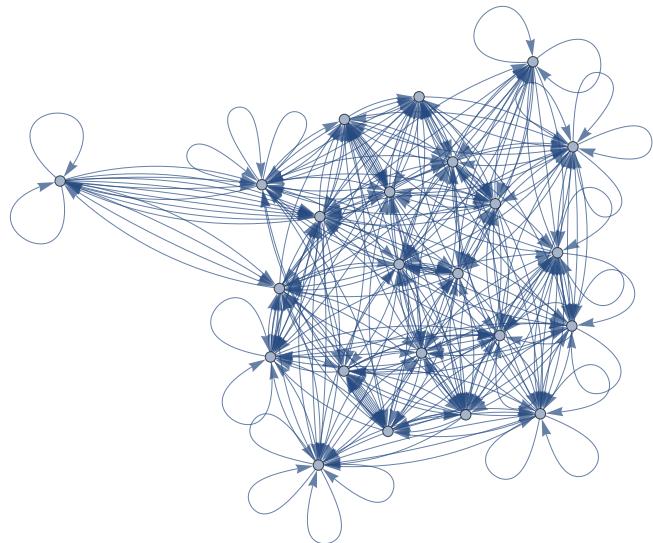
$l = 5$



$l = 7$



$l = 13$

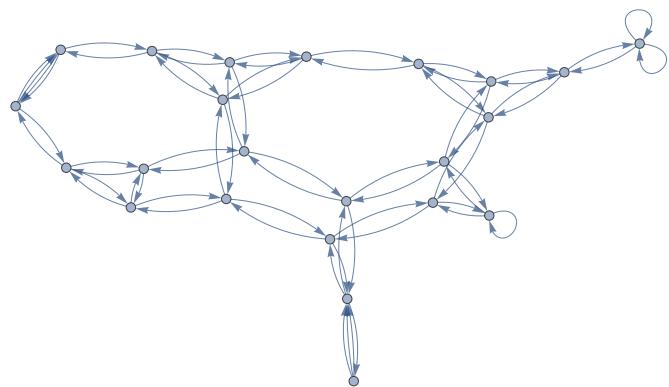


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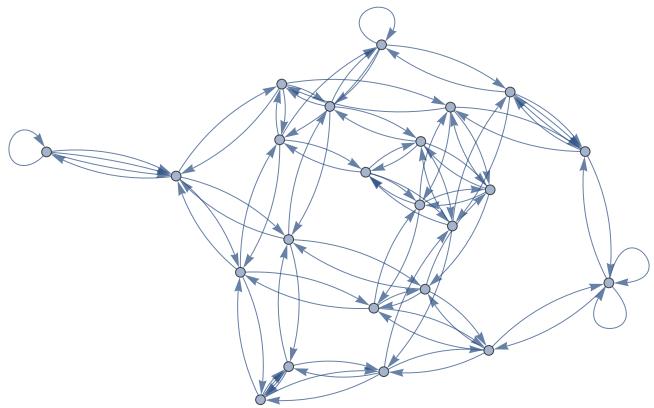
p = 269

$$\begin{aligned} & (-122 + j) (-111 + j) (-92 + j) (-5 + j) j (54 + j) (69 + j) (70 + j) (72 + j) (80 + j) (127 + j) \\ & (50 - 117 j + j^2) (1 - 87 j + j^2) (75 - 37 j + j^2) (73 + 22 j + j^2) (13 + 32 j + j^2) (-3 + 105 j + j^2) \end{aligned}$$

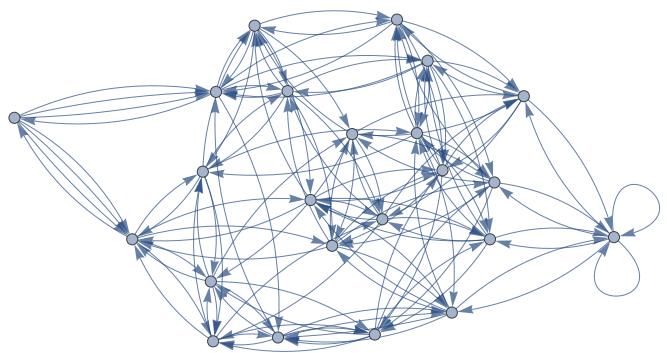
l = 2



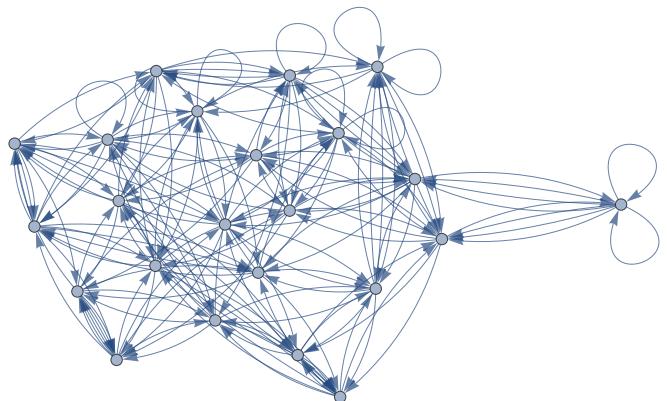
l = 3



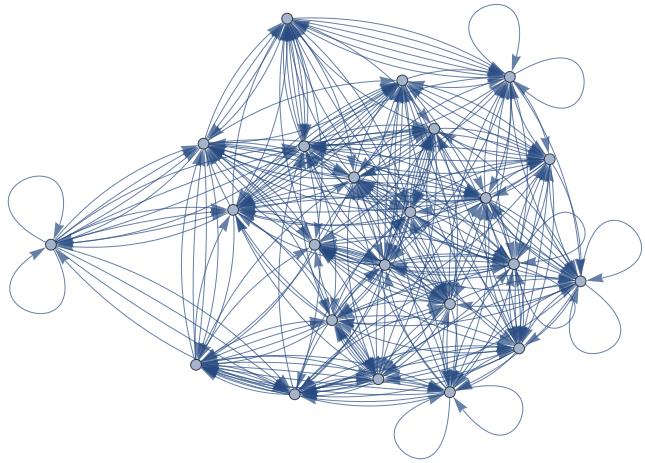
$l = 5$



$l = 7$



$l = 13$

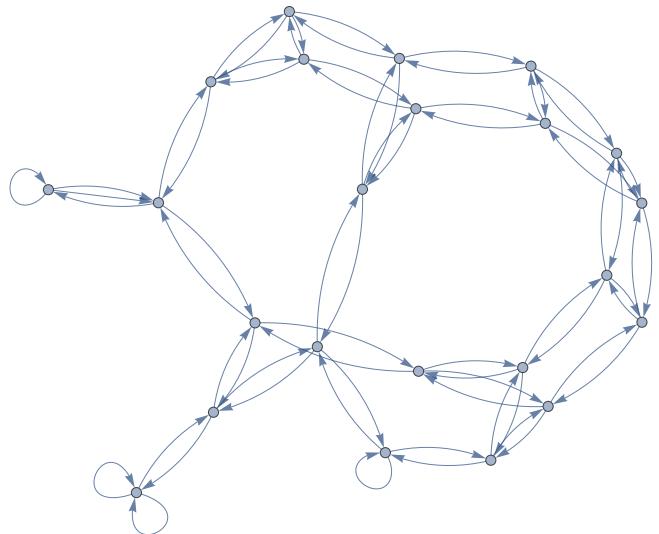


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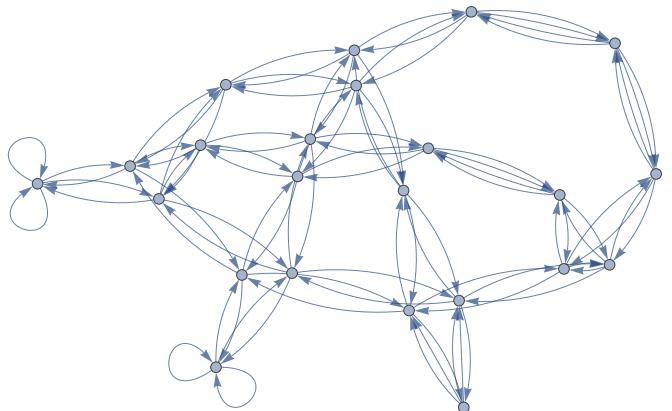
p = 271

$$\begin{aligned} & (-1728 + j) \ (-125 + j) \ (-98 + j) \ (-69 + j) \ (-47 + j) \ (-23 + j) \\ & (31 + j) \ (35 + j) \ (69 + j) \ (123 + j) \ (130 + j) \ (-41 - 114j + j^2) \ (-98 - 95j + j^2) \\ & (-119 - 70j + j^2) \ (-35 - 53j + j^2) \ (90 + 66j + j^2) \ (132 + 80j + j^2) \end{aligned}$$

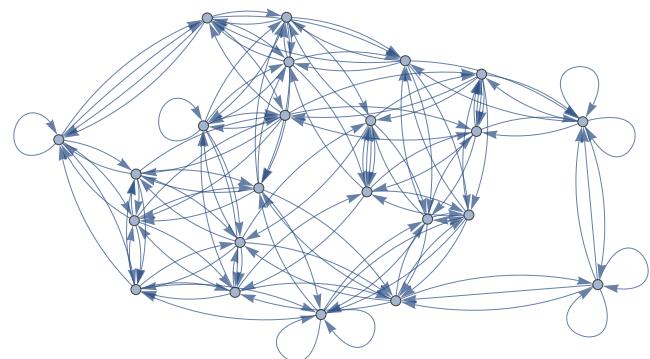
l = 2



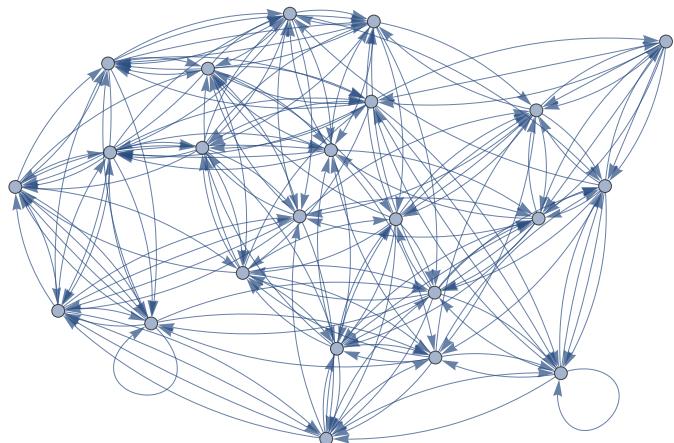
l = 3



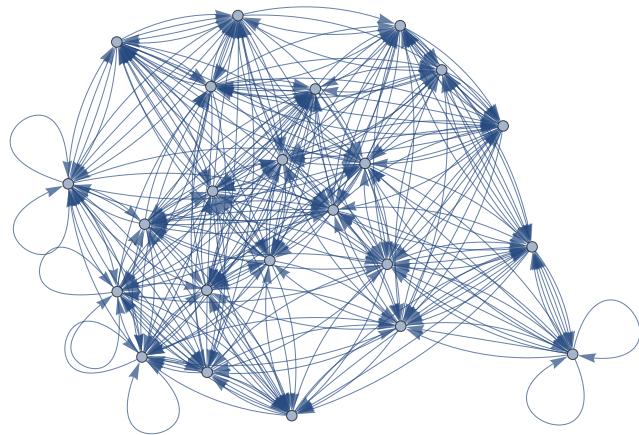
$l = 5$



$l = 7$



$l = 13$

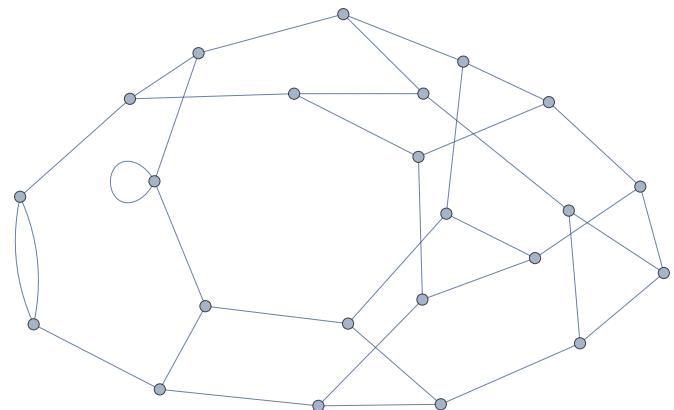


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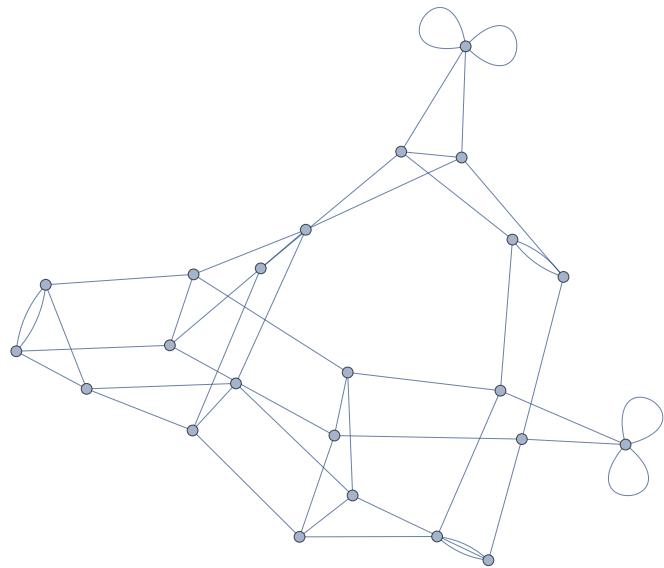
p = 277

$$(-61 + j) (33 + j) (82 + j) (-60 - 106 j + j^2) (122 - 105 j + j^2) (-82 - 82 j + j^2) (32 - 61 j + j^2) (76 - 49 j + j^2) (-76 - 44 j + j^2) (-131 - 4 j + j^2) (-38 + 32 j + j^2) (-132 + 57 j + j^2) (8 + 91 j + j^2)$$

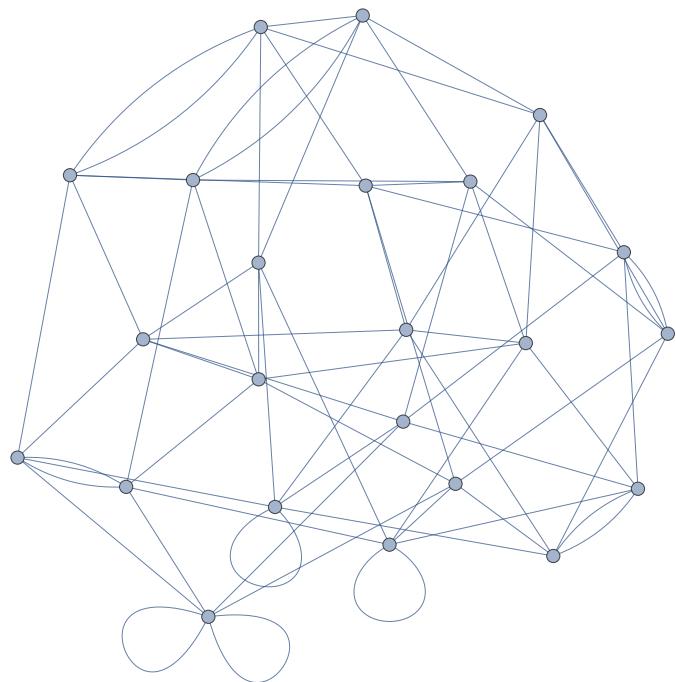
l = 2



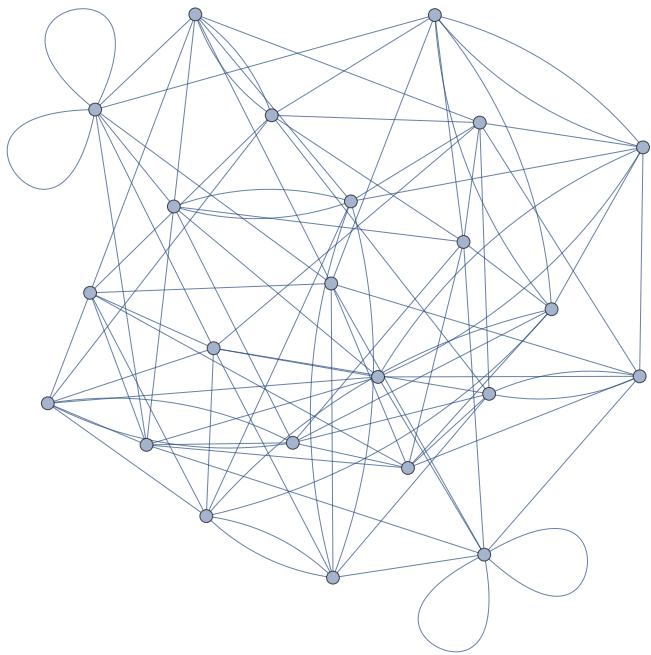
l = 3



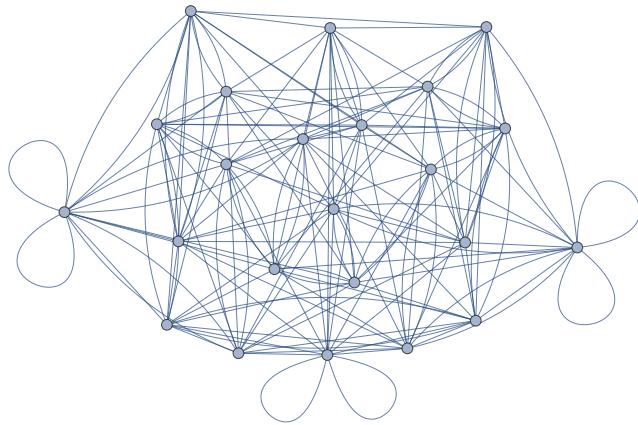
$l = 5$



$l = 7$



$l = 13$

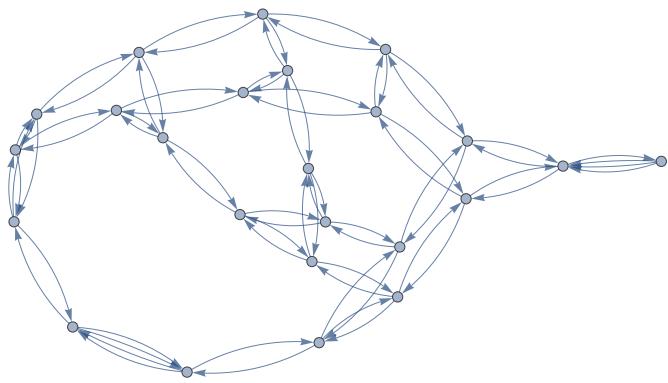


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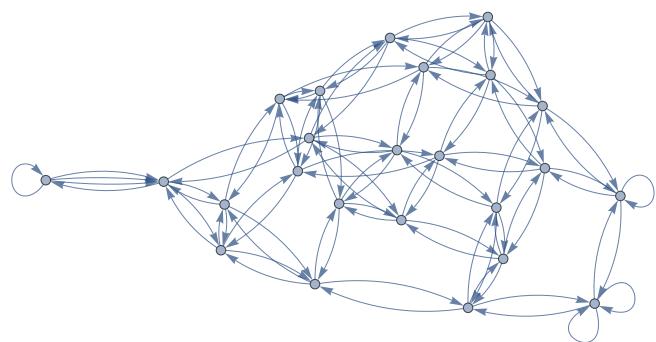
$p = 281$

$$\begin{aligned} & (-133 + j) \ (-130 + j) \ (-109 + j) \ (-90 + j) \ (-84 + j) \ (-48 + j) \\ & (-5 + j) \ j \ (29 + j) \ (32 + j) \ (-56 - 81 j + j^2) \ (-63 - 79 j + j^2) \ (7 - 38 j + j^2) \\ & (44 + 17 j + j^2) \ (-3 + 37 j + j^2) \ (-134 + 49 j + j^2) \ (32 + 131 j + j^2) \end{aligned}$$

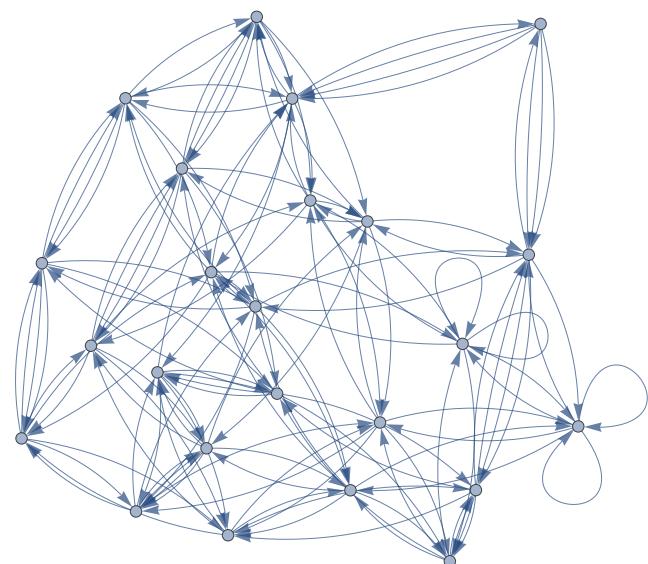
$l = 2$



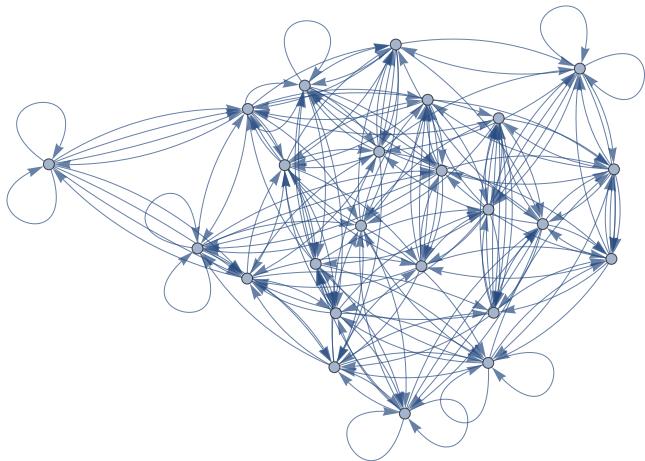
$l = 3$



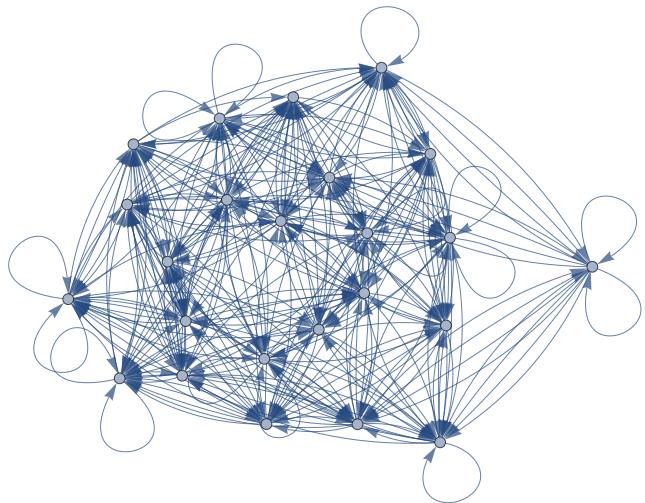
$l = 5$



$l = 7$



$l = 13$

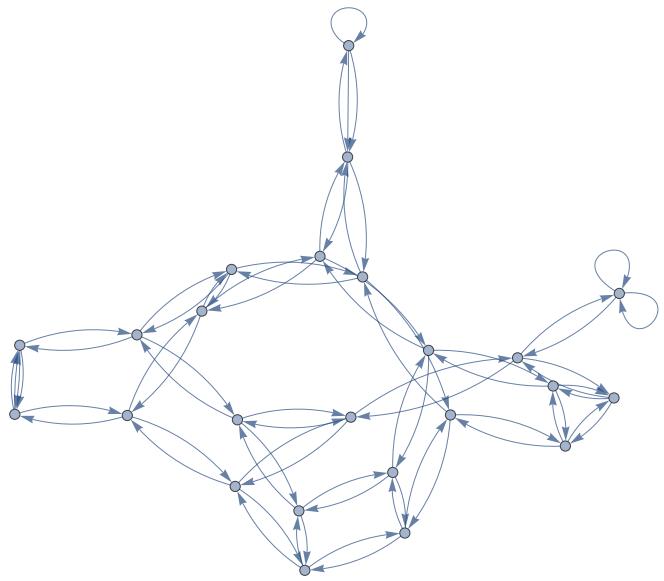


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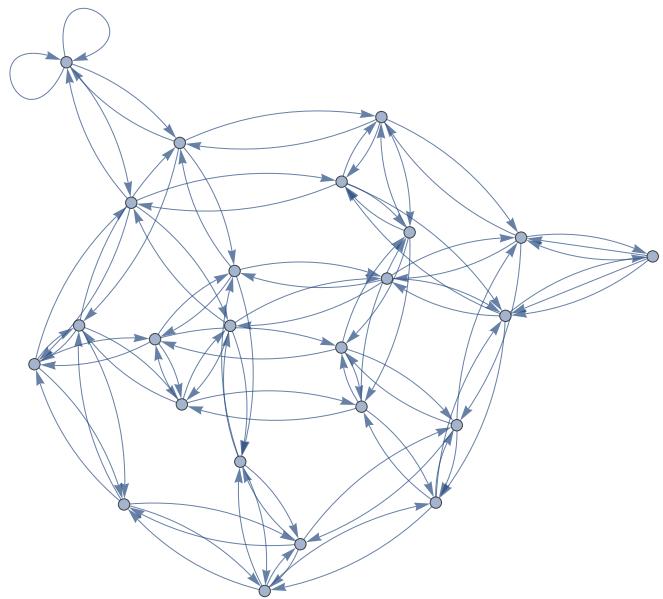
$p = 283$

$$\begin{aligned} & (-1728 + j) \ (-122 + j) \ (-78 + j) \ (-60 + j) \ (-21 + j) \ (32 + j) \ (-84 + j^2) \\ & (-111 - 133 j + j^2) \ (-141 - 109 j + j^2) \ (60 - 83 j + j^2) \ (-115 - 71 j + j^2) \\ & (-54 - 58 j + j^2) \ (-42 + 45 j + j^2) \ (-4 + 56 j + j^2) \ (108 + 111 j + j^2) \end{aligned}$$

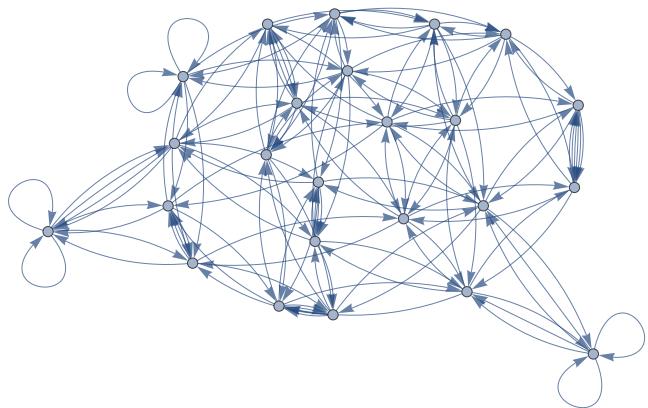
$l = 2$



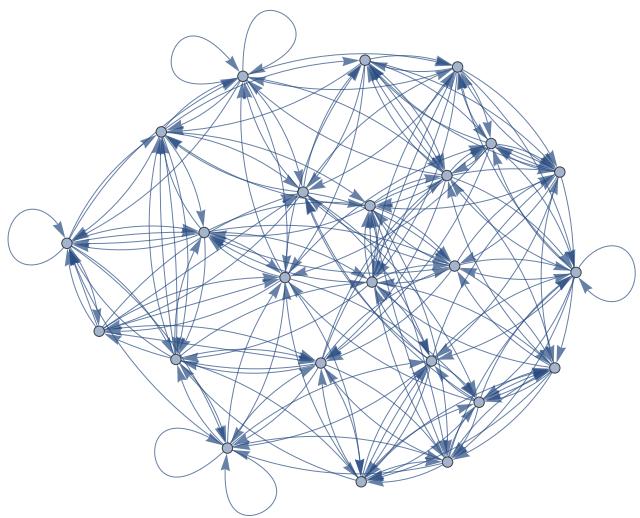
$l = 3$



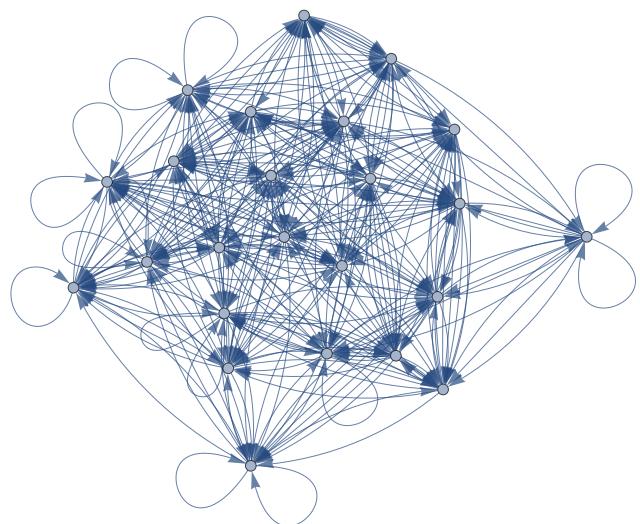
$l = 5$



$l = 7$



$l = 13$

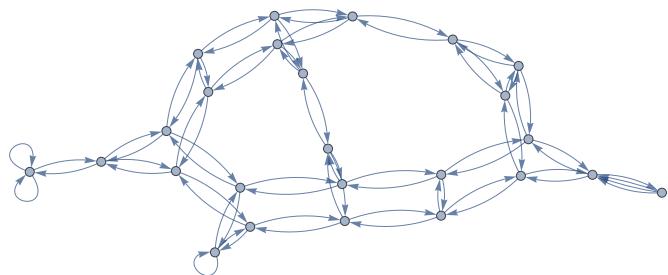


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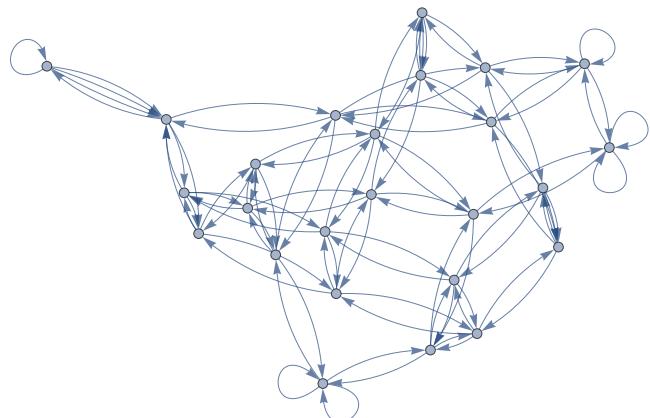
p = 293

$$\begin{aligned} & (-141 + j) (-127 + j) (-124 + j) (-89 + j) (-88 + j) (-48 + j) j (50 + j) \\ & (81 + j) (-144 - 124 j + j^2) (-40 - 50 j + j^2) (-1 + 2 j + j^2) (-72 + 19 j + j^2) \\ & (101 + 54 j + j^2) (79 + 104 j + j^2) (116 + 120 j + j^2) (-29 + 128 j + j^2) \end{aligned}$$

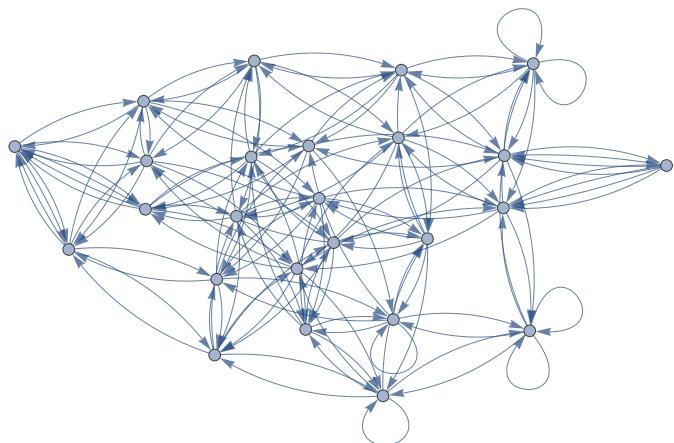
l = 2



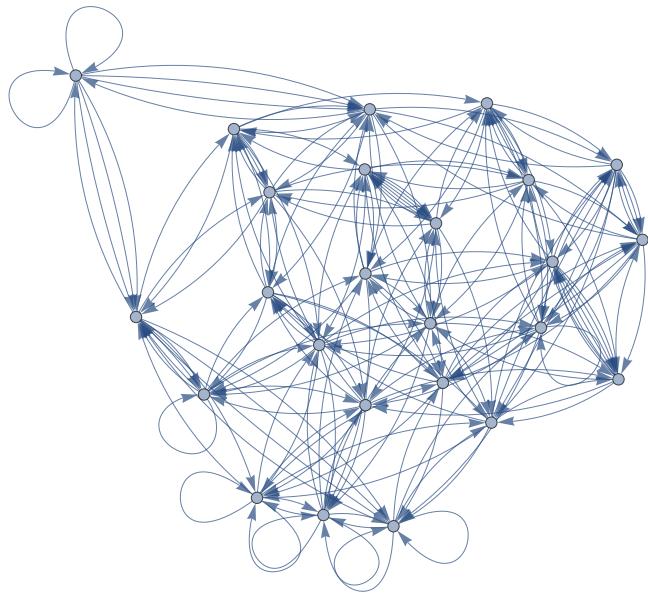
l = 3



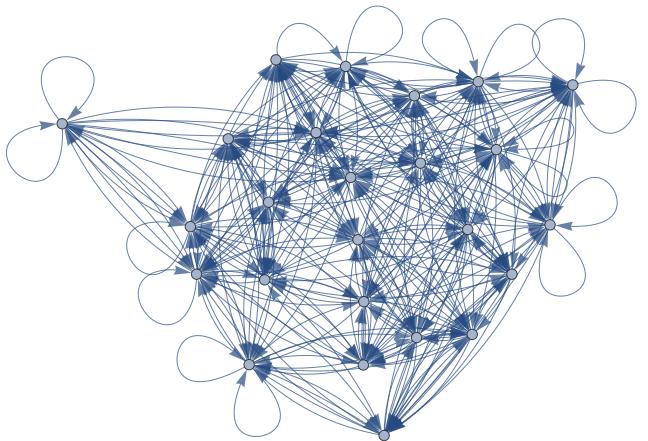
l = 5



l = 7



$l = 13$

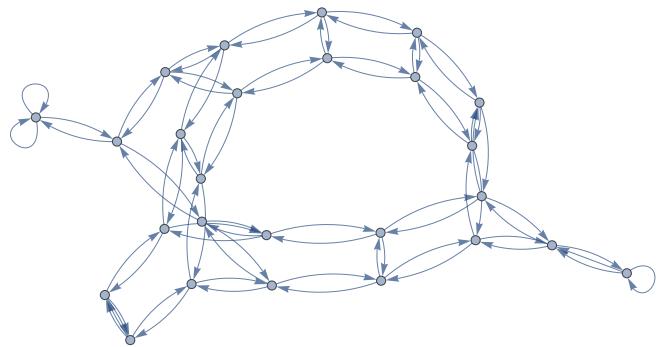


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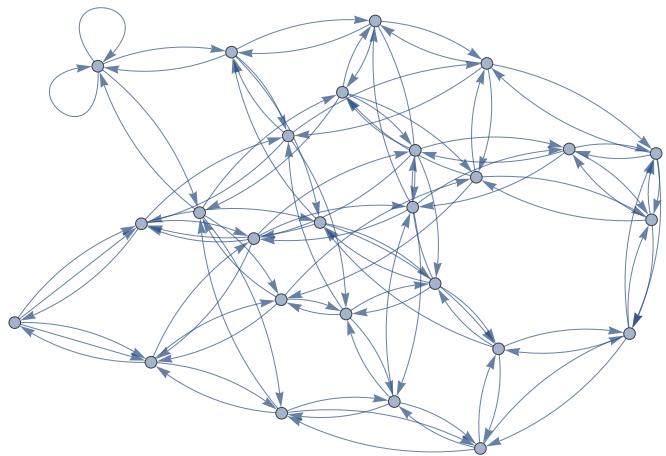
$p = 307$

$$\begin{aligned} & (-1728 + j) \ (-144 + j) \ (-81 + j) \ (-38 + j) \ (-2 + j) \ (2 + j) \\ & (64 - 153 j + j^2) \ (152 - 143 j + j^2) \ (-113 - 66 j + j^2) \ (-12 - 47 j + j^2) \ (102 - j + j^2) \\ & (-102 + 43 j + j^2) \ (140 + 45 j + j^2) \ (36 + 71 j + j^2) \ (-57 + 102 j + j^2) \ (6 + 108 j + j^2) \end{aligned}$$

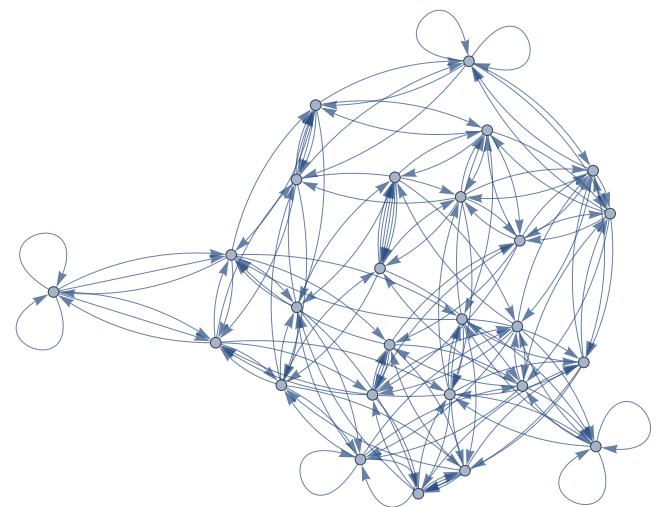
$l = 2$



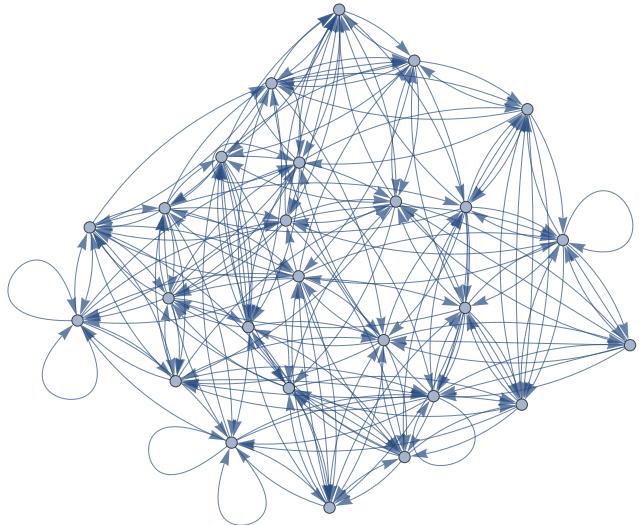
$l = 3$



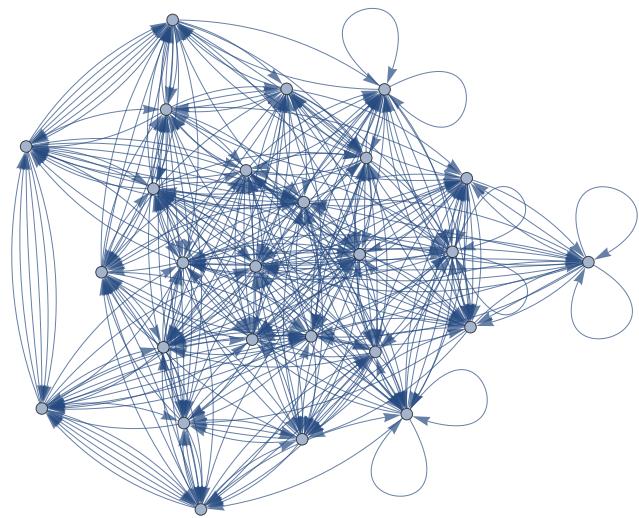
$l = 5$



$l = 7$



$l = 13$

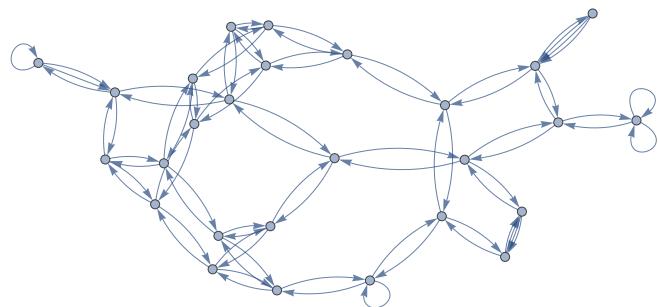


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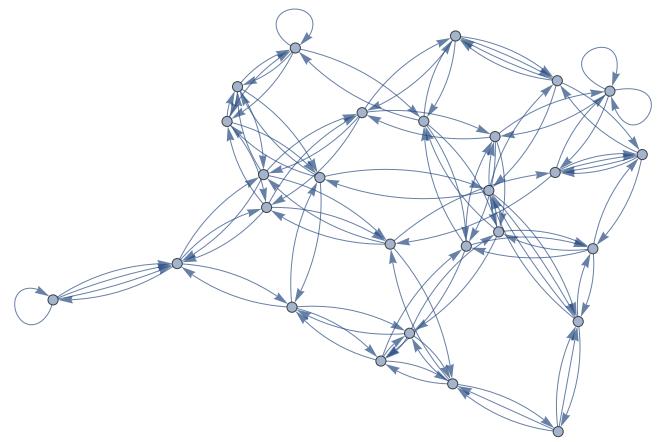
$p = 311$

$$\begin{aligned} & (-1728 + j) \ (-150 + j) \ (-132 + j) \ (-131 + j) \ (-102 + j) \ (-99 + j) \ (-77 + j) \\ & (-46 + j) \ (-32 + j) \ (-19 + j) \ j \ (7 + j) \ (12 + j) \ (59 + j) \ (64 + j) \ (79 + j) \ (86 + j) \\ & (114 + j) \ (143 + j) \ (119 - 153 j + j^2) \ (61 - 113 j + j^2) \ (-51 + 22 j + j^2) \ (-68 + 148 j + j^2) \end{aligned}$$

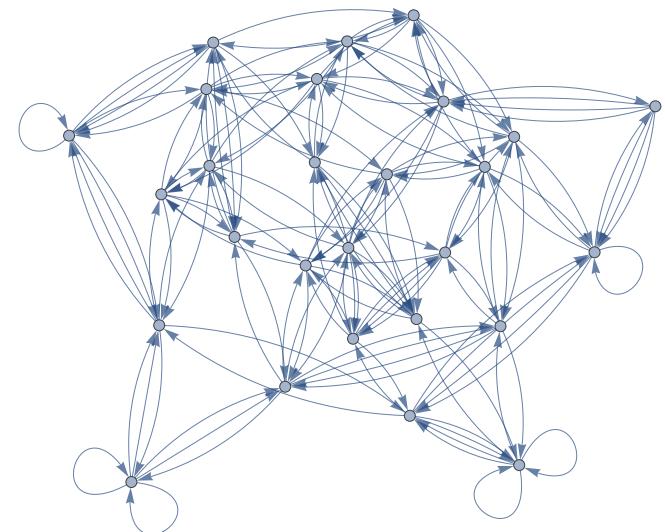
$l = 2$



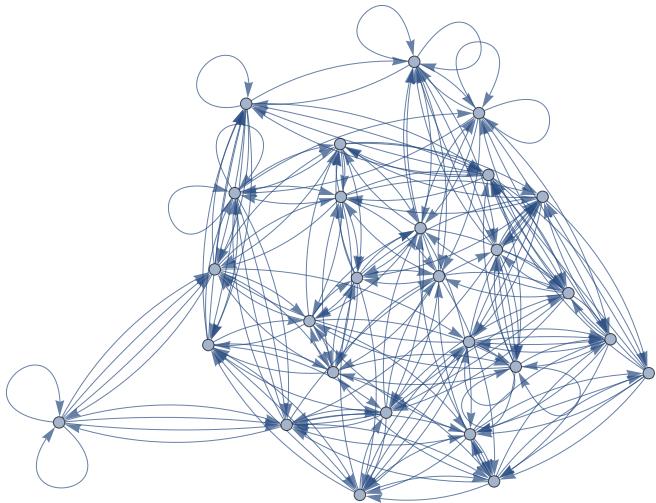
$l = 3$



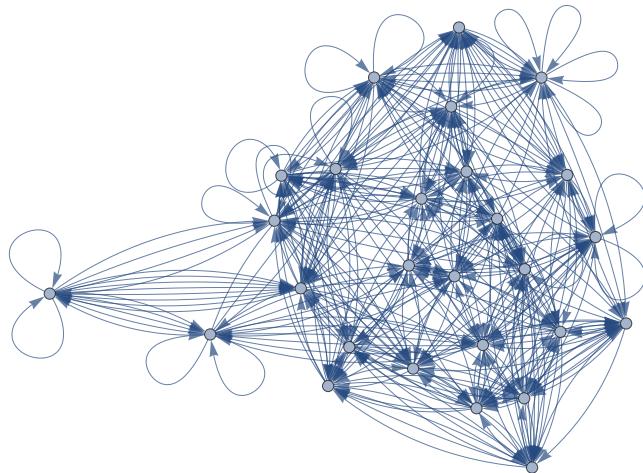
$l = 5$



$l = 7$



$l = 13$

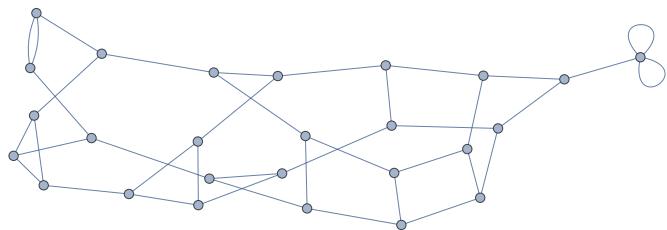



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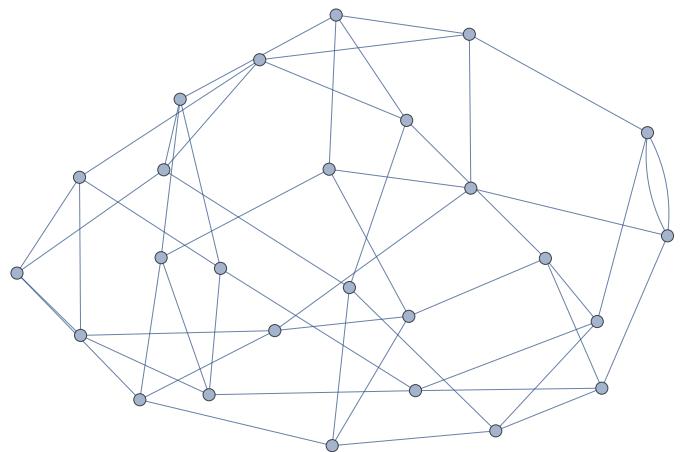
$p = 313$

$$\begin{aligned}
 & (-129 + j) (-68 + j) (-61 + j) (113 + j) (-68 - 142j + j^2) \\
 & (115 - 130j + j^2) (124 - 110j + j^2) (51 - 106j + j^2) (82 - 87j + j^2) (97 - 40j + j^2) \\
 & (6 - 32j + j^2) (61 - 17j + j^2) (133 + 33j + j^2) (125 + 95j + j^2) (-48 + 115j + j^2)
 \end{aligned}$$

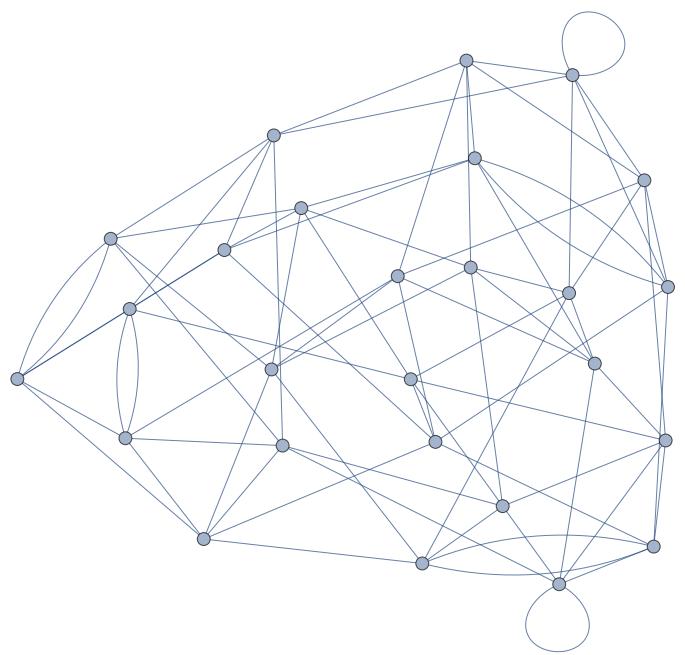
$l = 2$



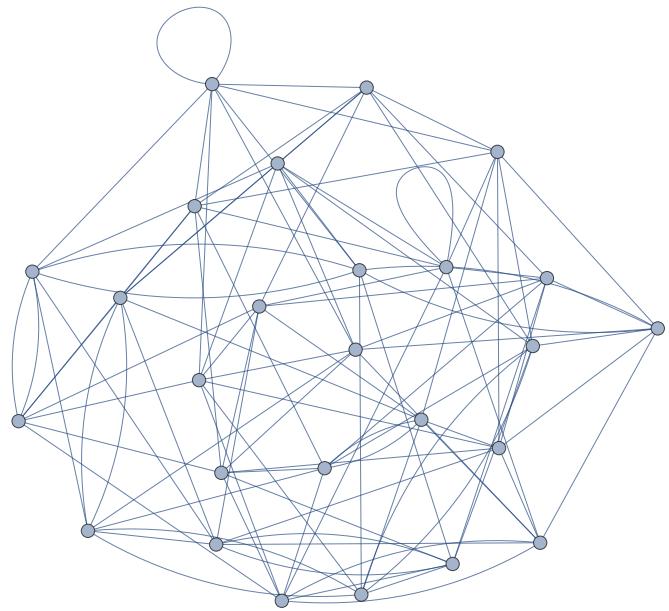
$l = 3$



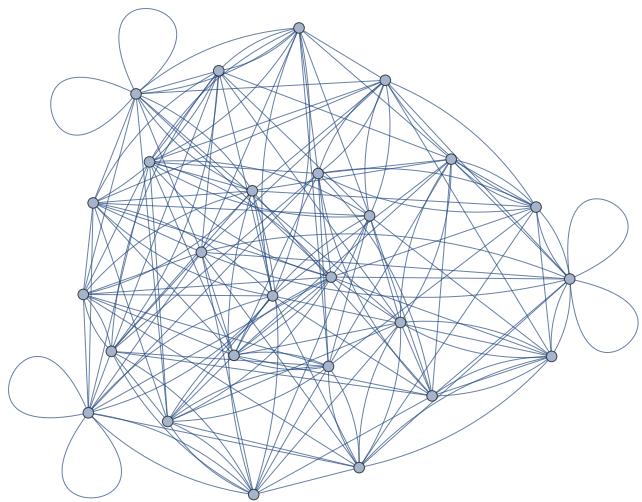
$l = 5$



$l = 7$



$l = 13$

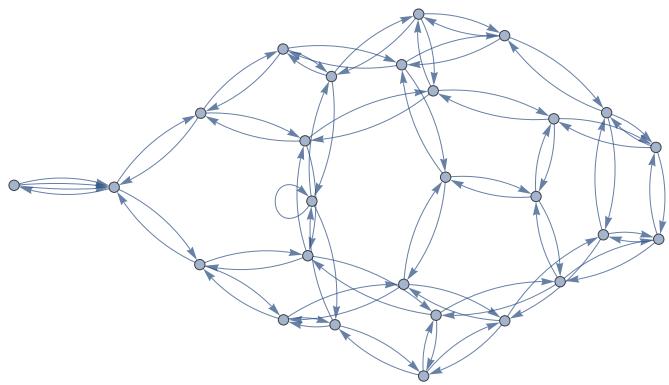



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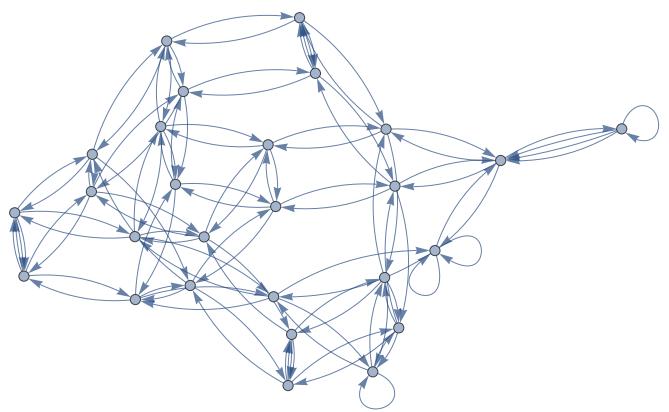
$p = 317$

$$\begin{aligned}
 & (-110 + j) (-75 + j) (-11 + j) j (129 + j) (149 - 158 j + j^2) \\
 & (-143 - 150 j + j^2) (75 - 138 j + j^2) (18 - 121 j + j^2) (41 - 93 j + j^2) (36 - 80 j + j^2) \\
 & (66 - 77 j + j^2) (-98 - 62 j + j^2) (115 - 9 j + j^2) (-27 + 23 j + j^2) (-84 + 41 j + j^2)
 \end{aligned}$$

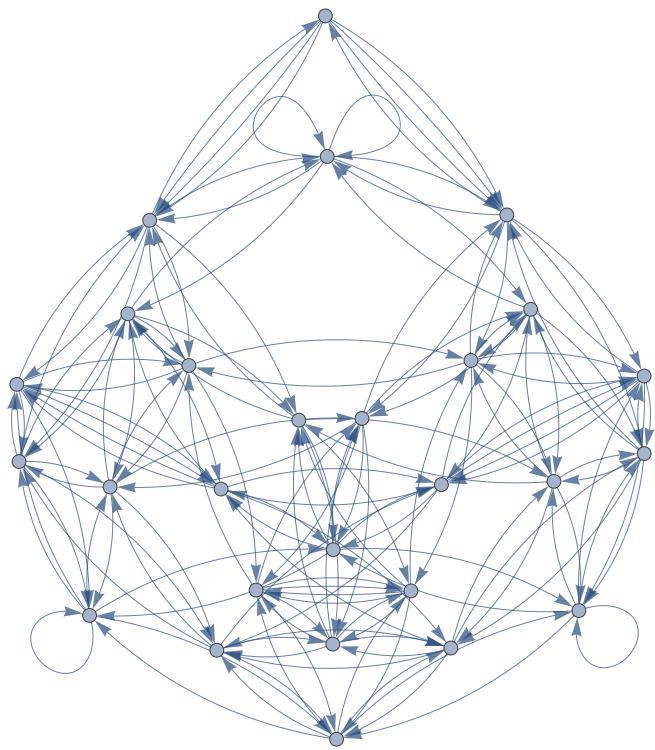
$l = 2$



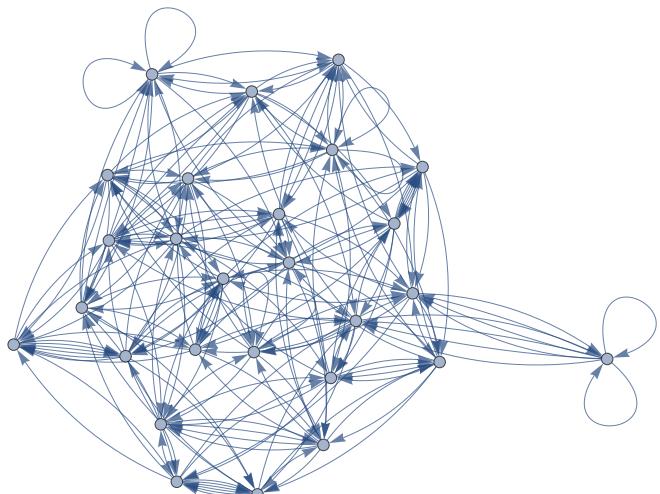
$l = 3$



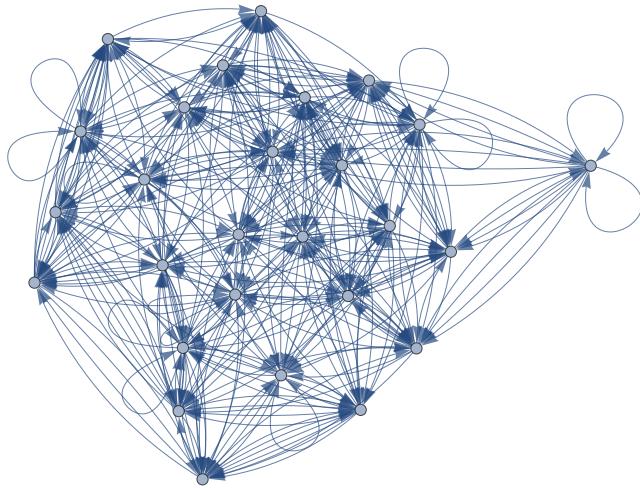
$l = 5$



$l = 7$



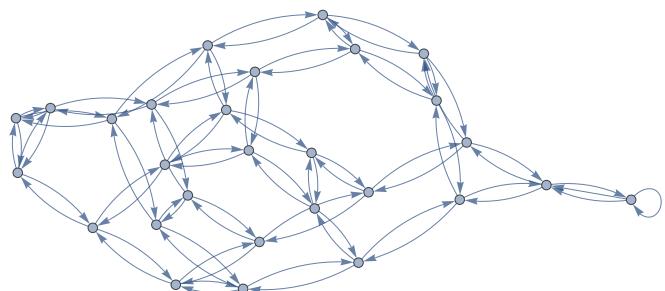
$l = 13$



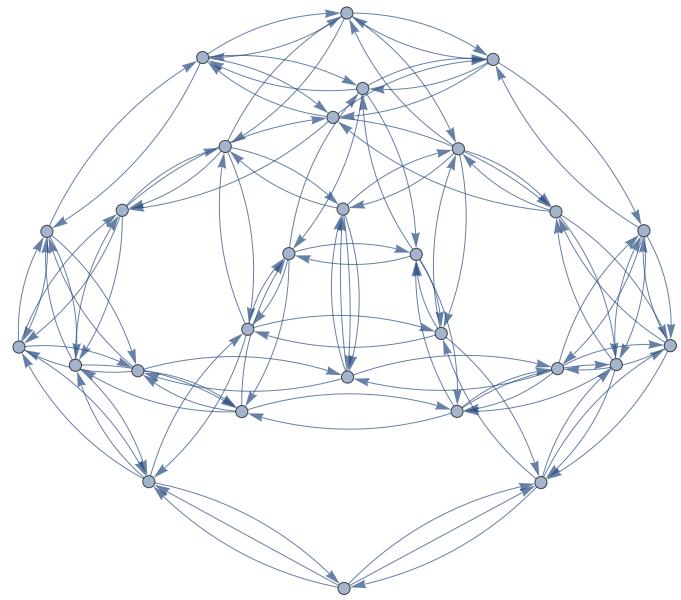
$p = 331$

$$\begin{aligned} & (-1728 + j) \ (-124 + j) \ (-118 + j) \ (-27 + j) \ (142 + j) \ (143 + j) \ (61 - 120 j + j^2) \\ & (-18 - 114 j + j^2) \ (80 - 84 j + j^2) \ (96 - 53 j + j^2) \ (61 - 28 j + j^2) \ (-61 - 27 j + j^2) \\ & (-157 - 23 j + j^2) \ (-151 + 35 j + j^2) \ (100 + 54 j + j^2) \ (85 + 130 j + j^2) \ (-49 + 145 j + j^2) \end{aligned}$$

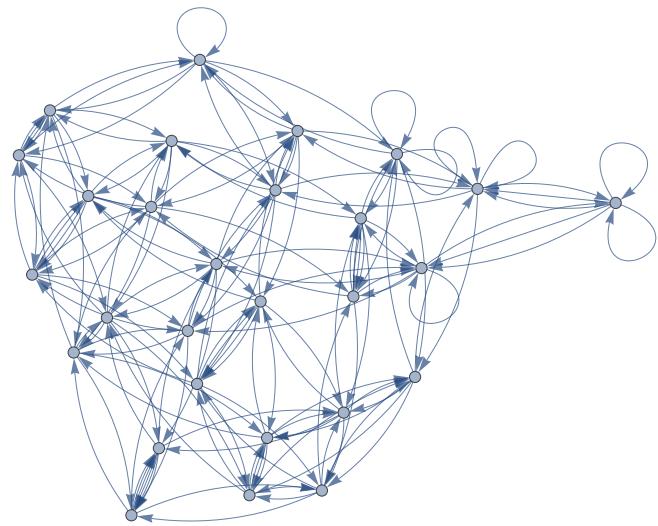
$l = 2$



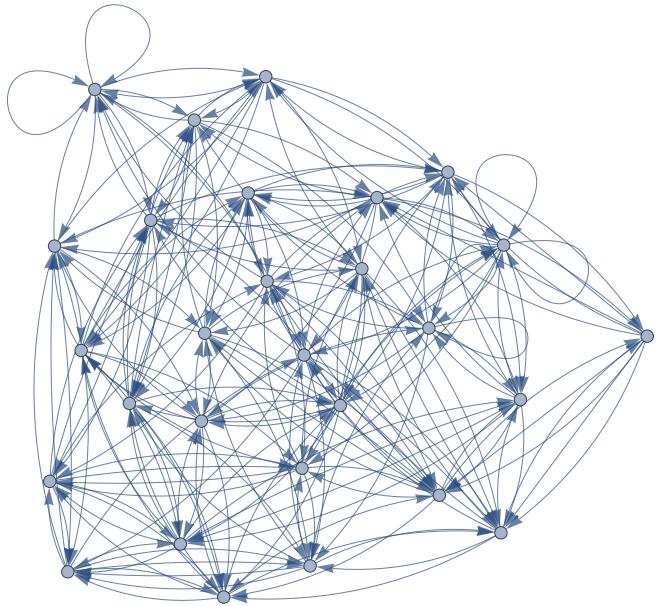
$l = 3$



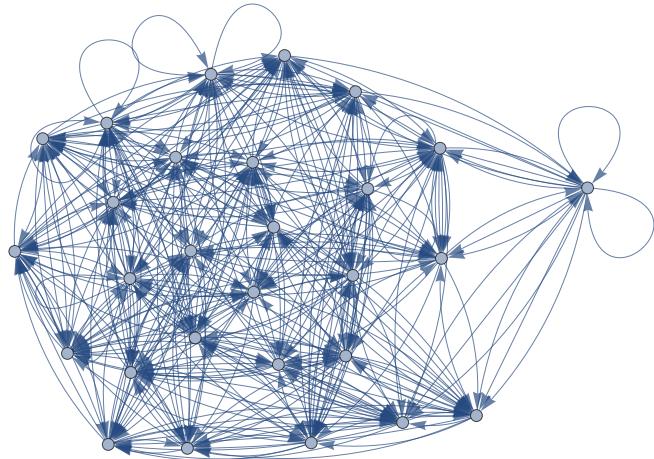
$l = 5$



$l = 7$



$l = 13$

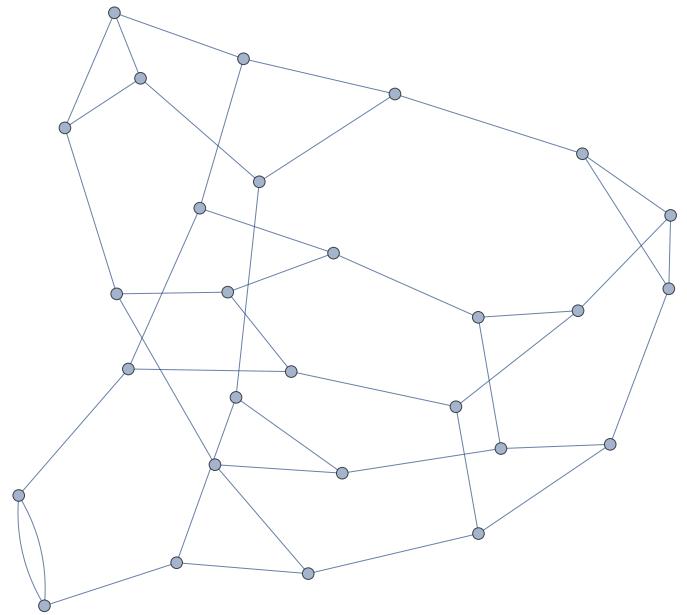



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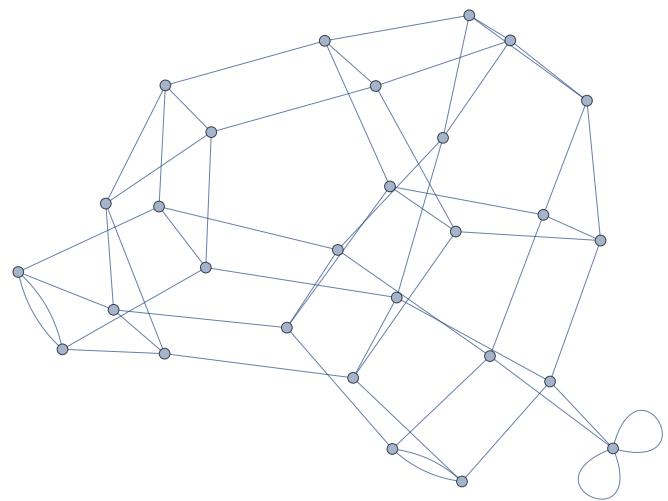
$p = 337$

$$\begin{aligned}
 & (-88 + j) (25 + j) (79 + j) (111 + j) (-47 - 156 j + j^2) (43 - 130 j + j^2) \\
 & (-48 - 129 j + j^2) (102 - 63 j + j^2) (-64 - 54 j + j^2) (-164 - 42 j + j^2) (-146 - 42 j + j^2) \\
 & (164 - 38 j + j^2) (30 - 28 j + j^2) (-36 + 87 j + j^2) (-69 + 91 j + j^2) (-56 + 100 j + j^2)
 \end{aligned}$$

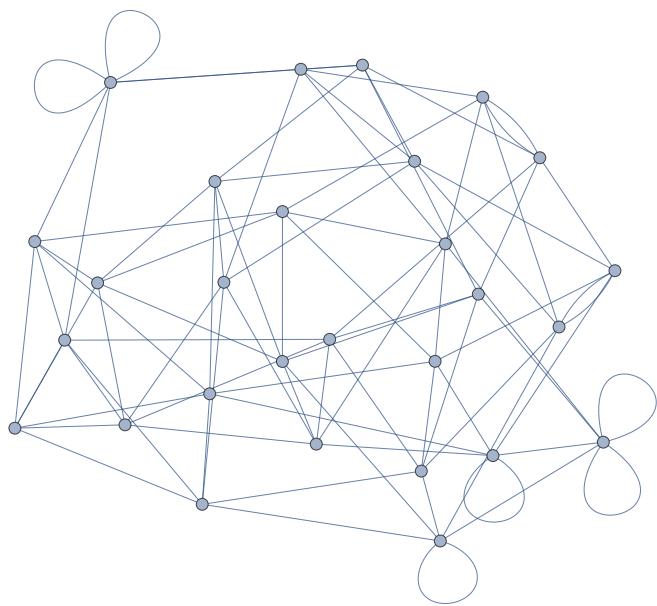
$l = 2$



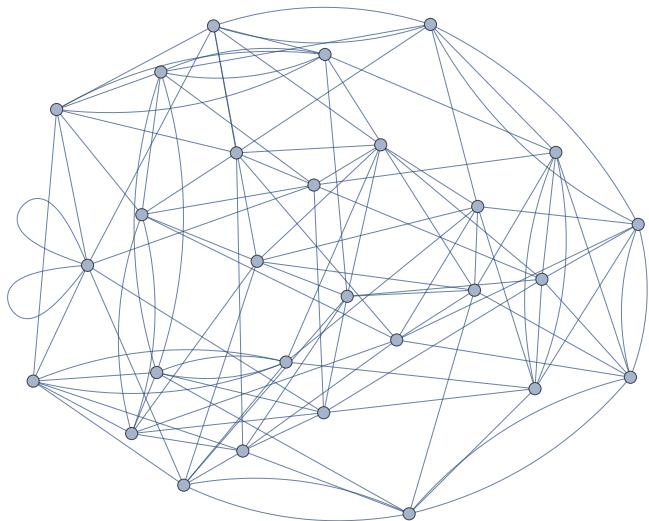
$l = 3$



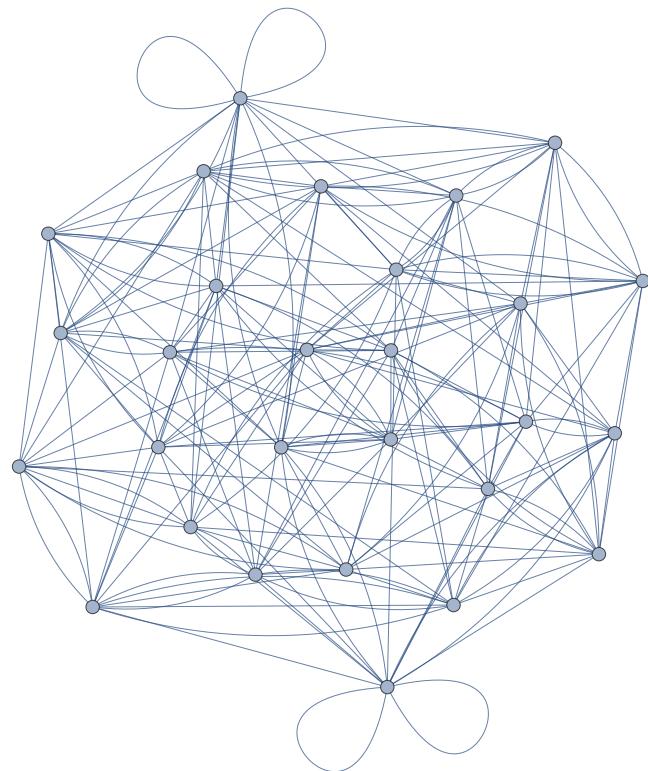
$l = 5$



$l = 7$



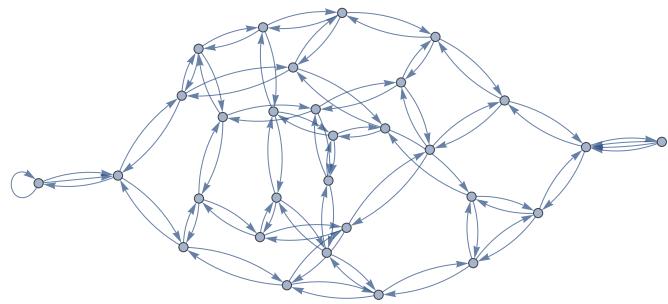
$l = 13$



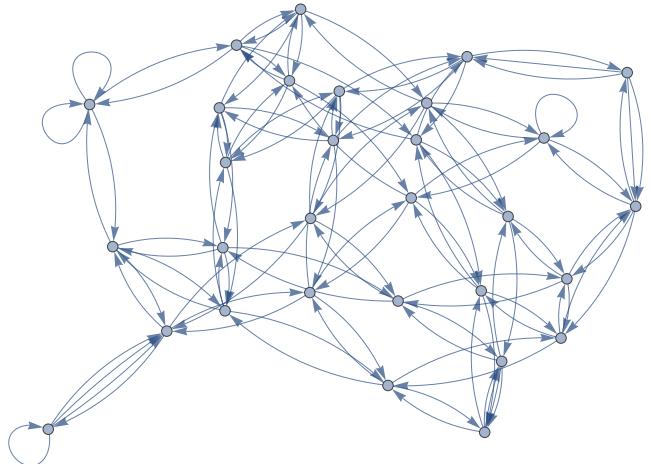
$p = 347$

$$\begin{aligned} & (-1728 + j) (-77 + j) j (9 + j) (36 + j) (132 + j) (145 + j) (150 + j) (163 + j) (167 + j) \\ & (166 - 140 j + j^2) (121 - 131 j + j^2) (-157 - 91 j + j^2) (103 + 2 j + j^2) (46 + 16 j + j^2) \\ & (-65 + 68 j + j^2) (166 + 76 j + j^2) (18 + 107 j + j^2) (170 + 133 j + j^2) (-140 + 159 j + j^2) \end{aligned}$$

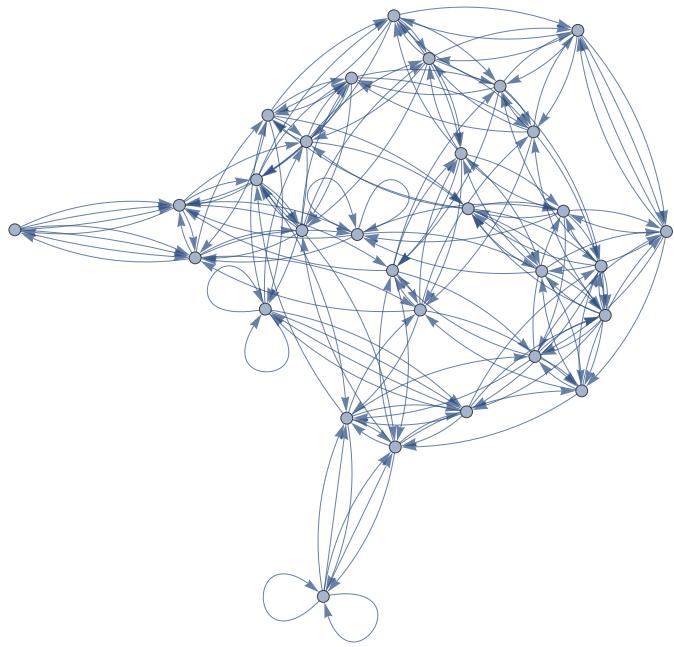
$l = 2$



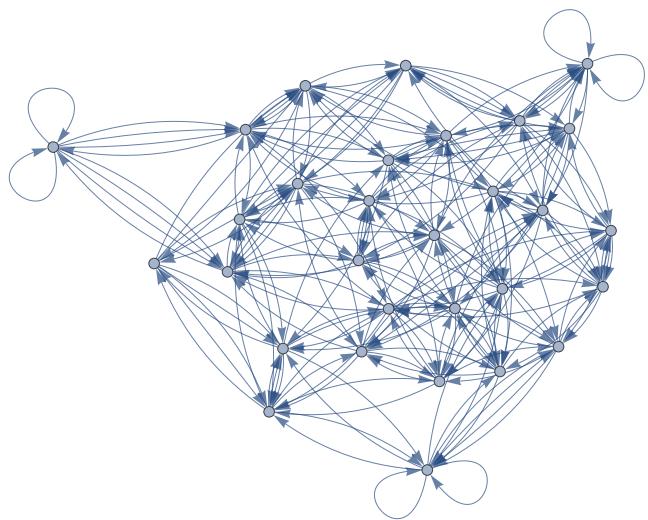
$l = 3$



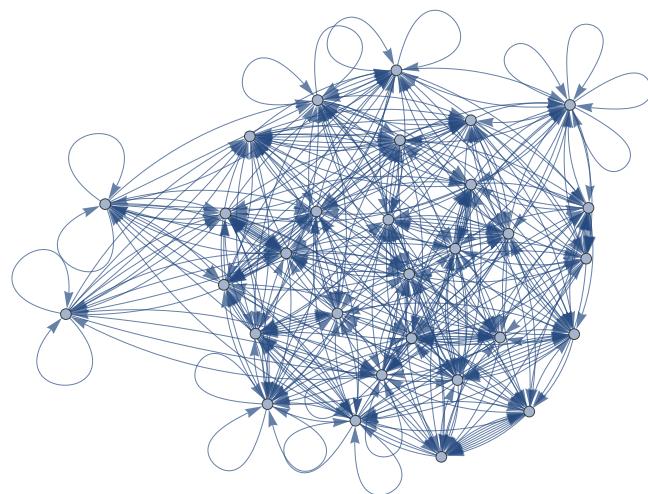
$l = 5$



$l = 7$



$l = 13$

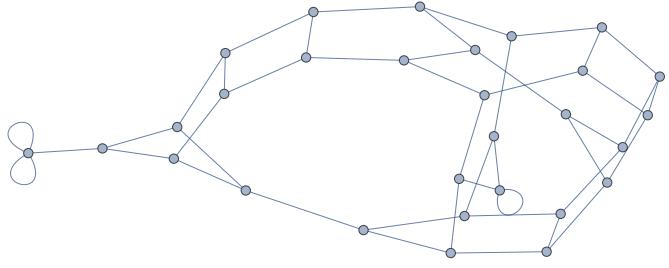


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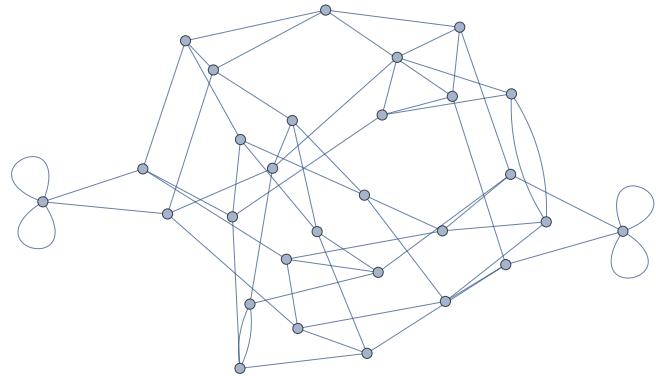
$p = 349$

$$\begin{aligned} & (-115 + j) \ (-110 + j) \ (-38 + j) \ (-36 + j) \ (27 + j) \ (60 + j) \ (118 + j) \ (102 + j^2) \\ & (64 - 163 j + j^2) \ (127 - 146 j + j^2) \ (-38 - 27 j + j^2) \ (1 - 10 j + j^2) \ (-102 - 9 j + j^2) \\ & (60 + 66 j + j^2) \ (53 + 102 j + j^2) \ (125 + 102 j + j^2) \ (61 + 114 j + j^2) \ (-53 + 125 j + j^2) \end{aligned}$$

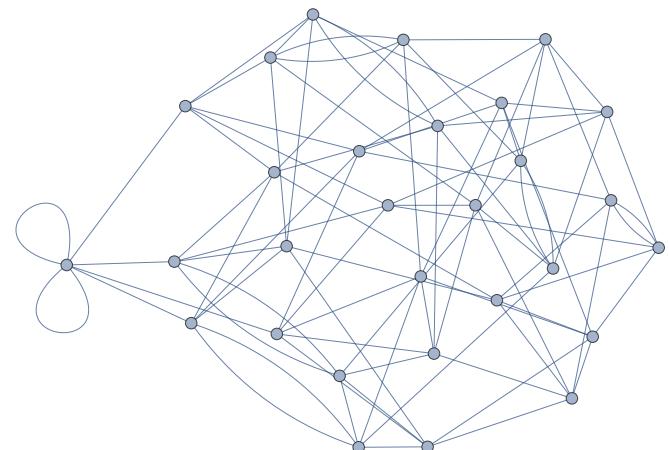
$l = 2$



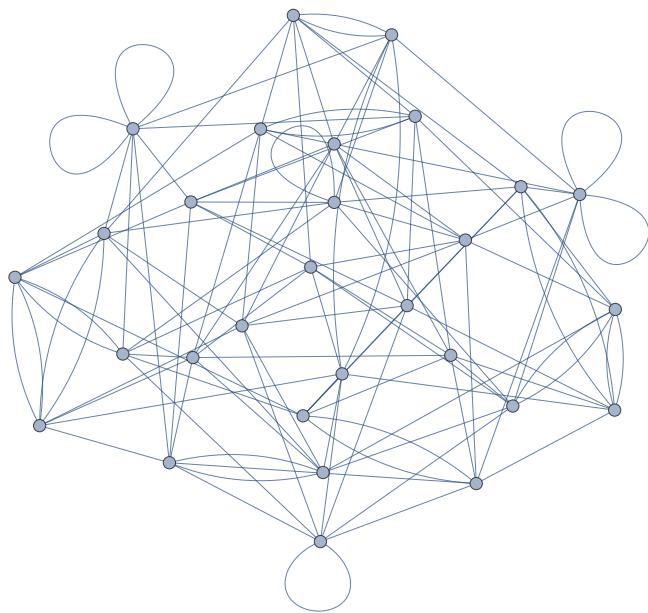
$l = 3$



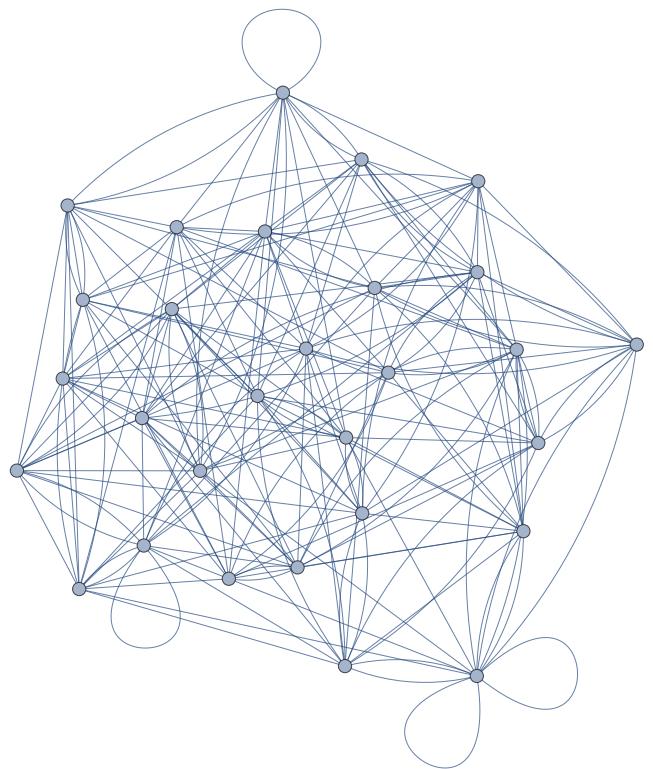
$l = 5$



$l = 7$



$l = 13$

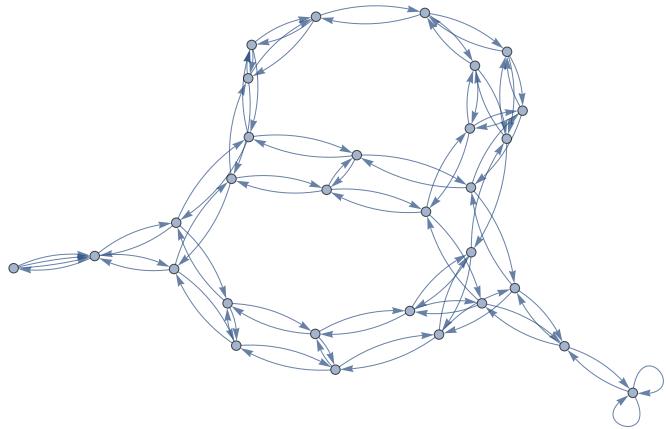


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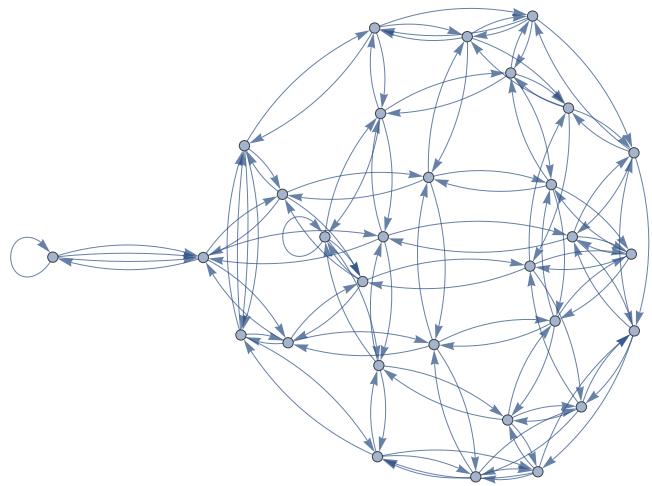
$p = 353$

$$\begin{aligned}
 & (-155 + j) (-58 + j) j (9 + j) (70 + j) (94 + j) (111 + j) (155 + j) (-66 - 143 j + j^2) \\
 & (164 - 99 j + j^2) (-45 - 76 j + j^2) (-35 - 67 j + j^2) (114 - 32 j + j^2) (150 + 27 j + j^2) \\
 & (-12 + 87 j + j^2) (148 + 93 j + j^2) (78 + 112 j + j^2) (-89 + 137 j + j^2) (2 + 148 j + j^2)
 \end{aligned}$$

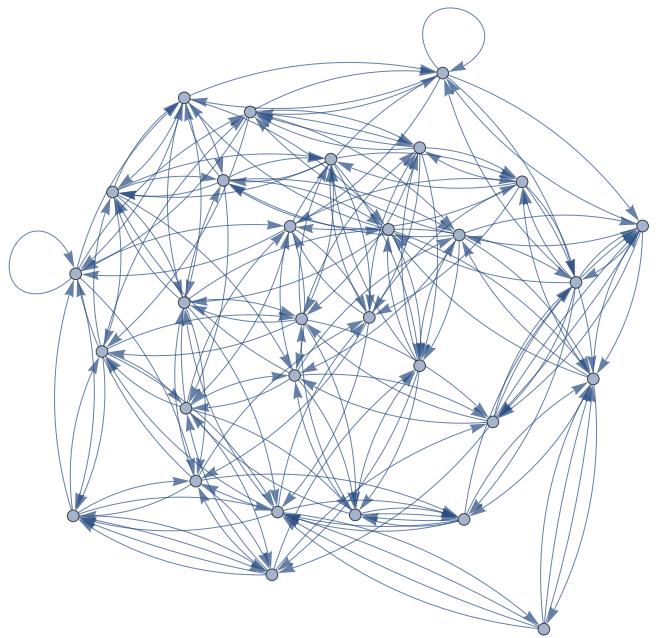
$l = 2$



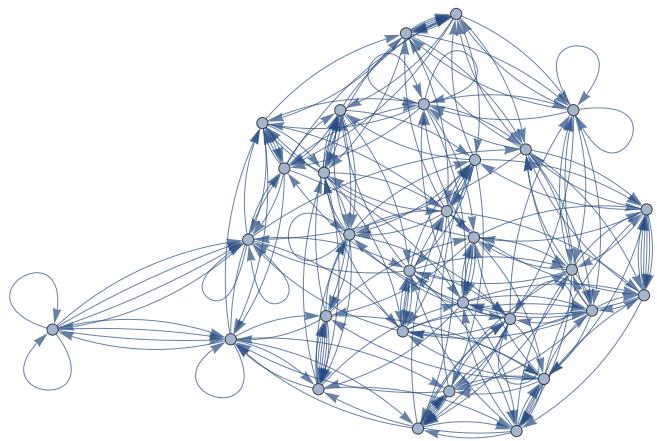
$l = 3$



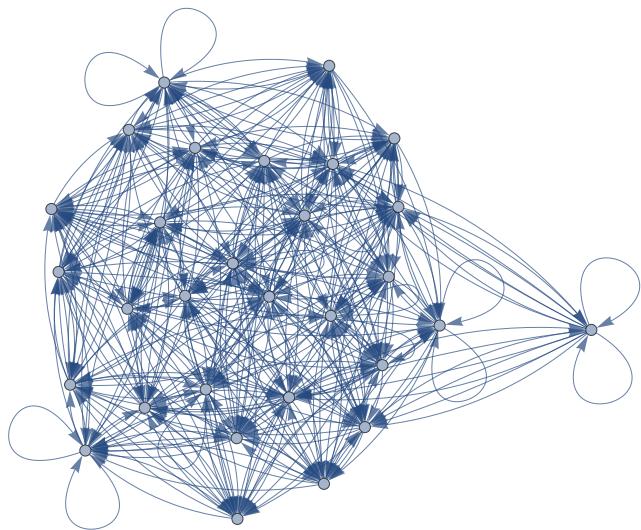
$l = 5$



$l = 7$



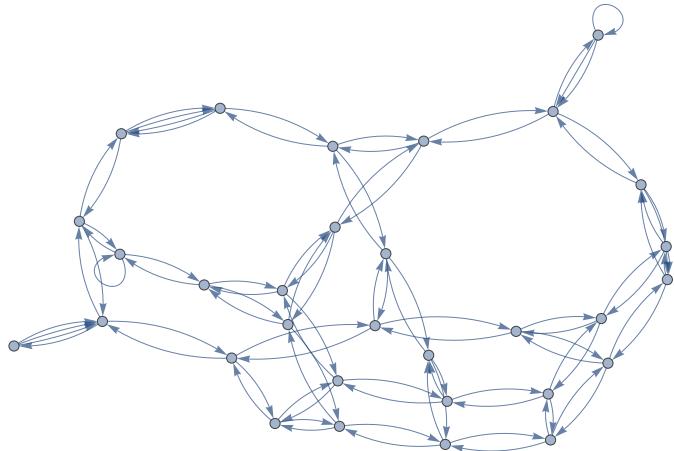
$l = 13$



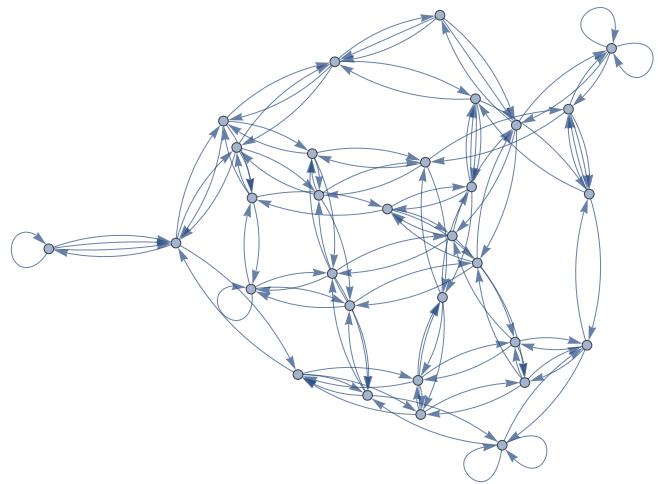
$p = 359$

$$\begin{aligned} & (-1728 + j) (-179 + j) (-178 + j) (-165 + j) (-157 + j) (-150 + j) (-141 + j) (-113 + j) (-102 + j) \\ & (-91 + j) (-45 + j) j (19 + j) (28 + j) (47 + j) (63 + j) (83 + j) (99 + j) (148 + j) (62 - 75 j + j^2) \\ & (59 - 32 j + j^2) (161 + 19 j + j^2) (-22 + 104 j + j^2) (161 + 145 j + j^2) (-66 + 161 j + j^2) \end{aligned}$$

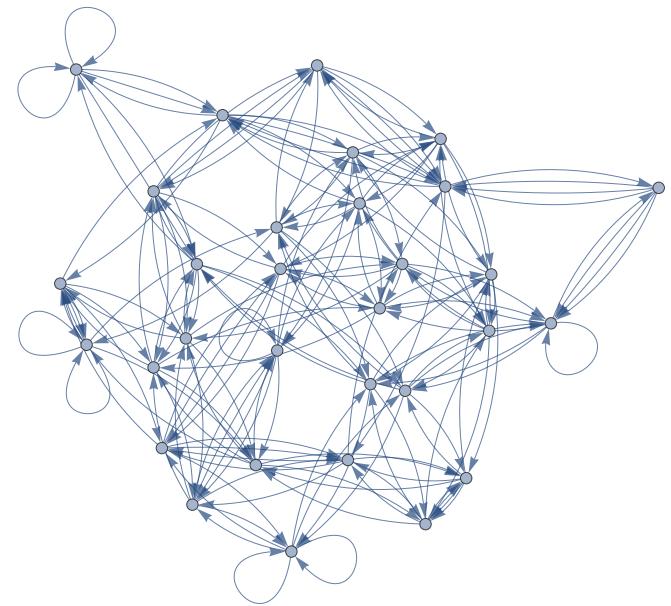
$l = 2$



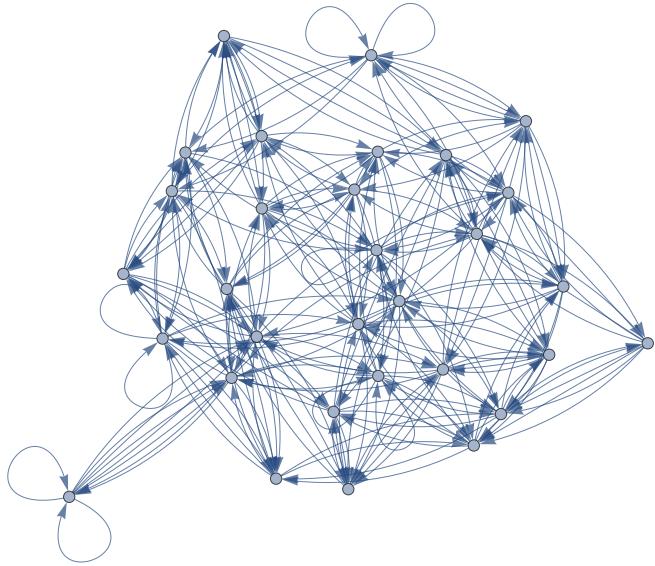
$l = 3$



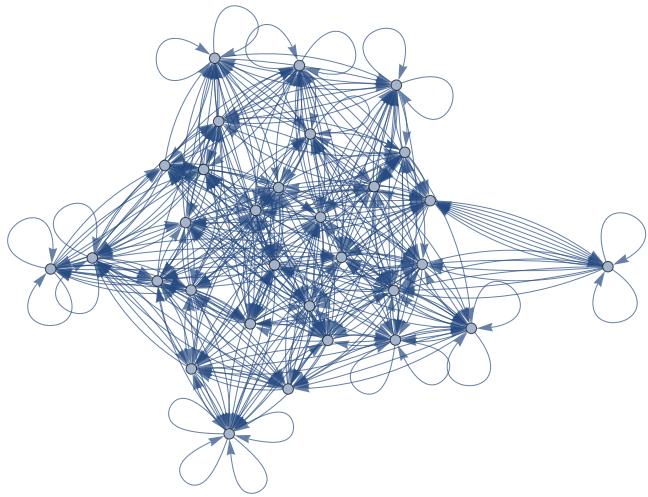
$l = 5$



$l = 7$



$l = 13$

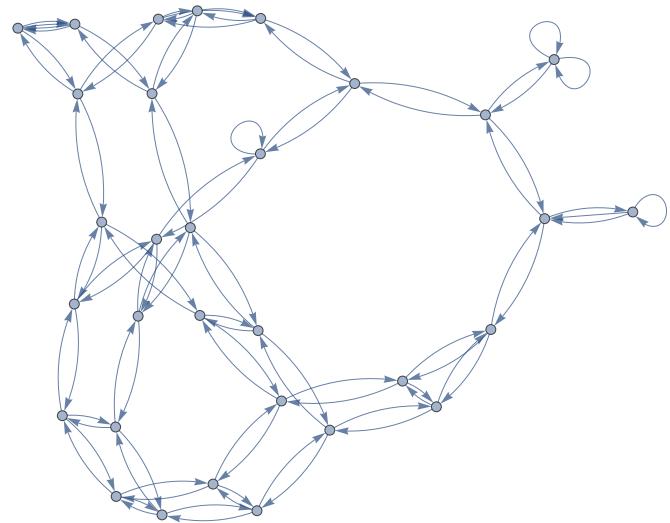



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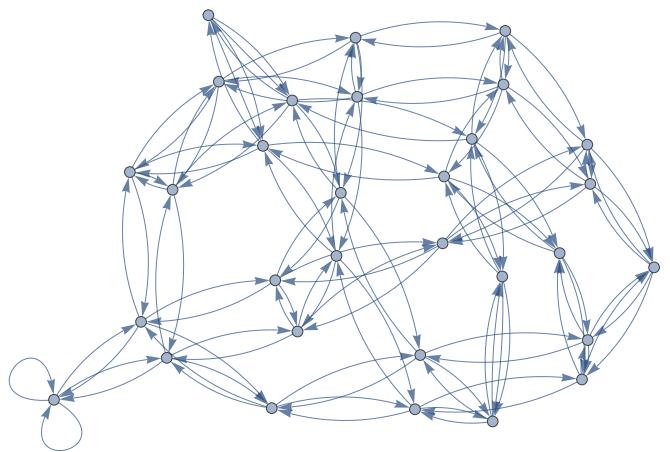
$p = 367$

$$\begin{aligned}
 & (-1728 + j) (-164 + j) (-135 + j) (-56 + j) (-46 + j) (-40 + j) (52 + j) \\
 & (72 + j) (74 + j) (-114 - 182 j + j^2) (-59 - 153 j + j^2) (-151 - 114 j + j^2) \\
 & (-175 - 113 j + j^2) (167 - 55 j + j^2) (-86 + 45 j + j^2) (15 + 73 j + j^2) \\
 & (-158 + 111 j + j^2) (29 + 141 j + j^2) (134 + 145 j + j^2) (135 + 168 j + j^2)
 \end{aligned}$$

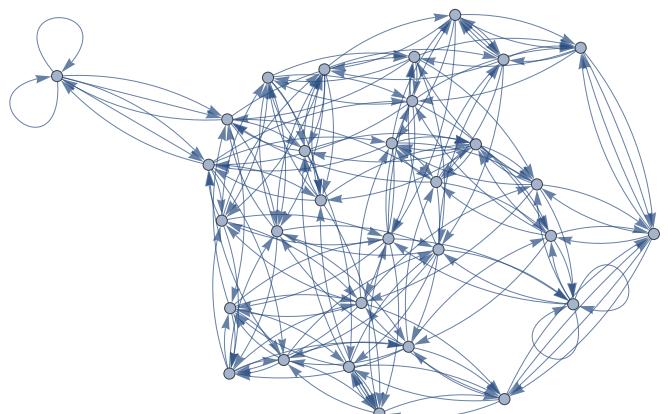
$l = 2$



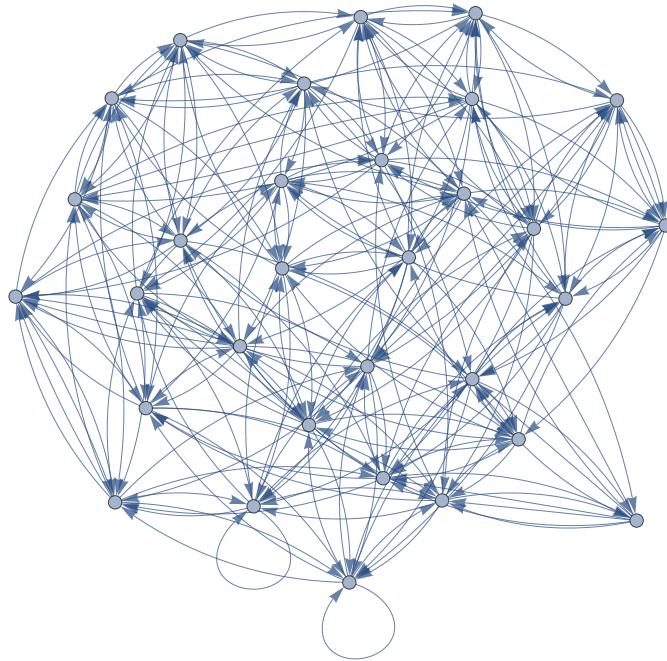
$l = 3$



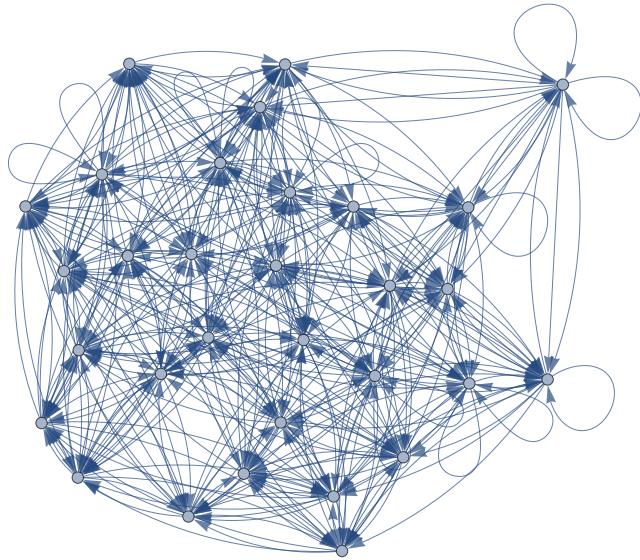
$l = 5$



$l = 7$



$l = 13$

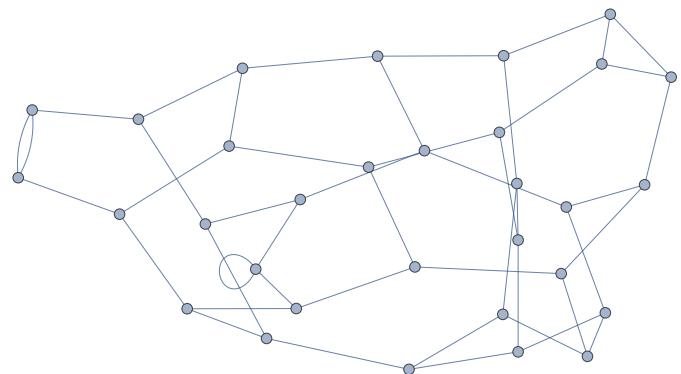



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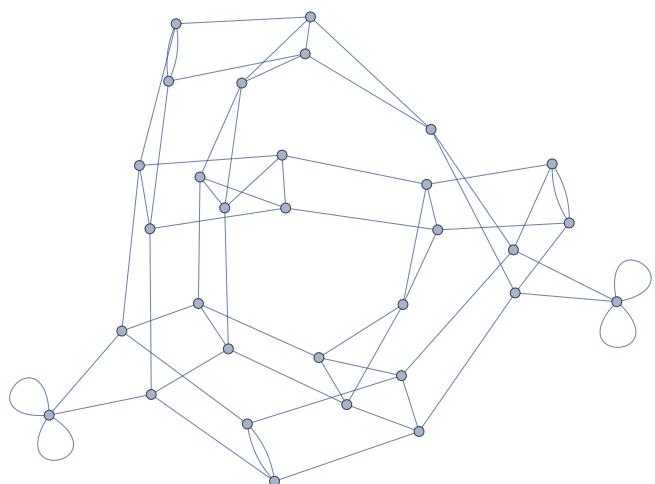
$p = 373$

$$\begin{aligned}
 & (-167 + j) (-56 + j) (-20 + j) (33 + j) (142 + j) (23 - 180 j + j^2) (-19 - 160 j + j^2) (111 - 139 j + j^2) \\
 & (156 - 118 j + j^2) (-176 - 96 j + j^2) (-156 - 68 j + j^2) (-20 - 30 j + j^2) (-84 + 49 j + j^2) \\
 & (-18 + 64 j + j^2) (119 + 97 j + j^2) (169 + 110 j + j^2) (-30 + 111 j + j^2) (-152 + 115 j + j^2)
 \end{aligned}$$

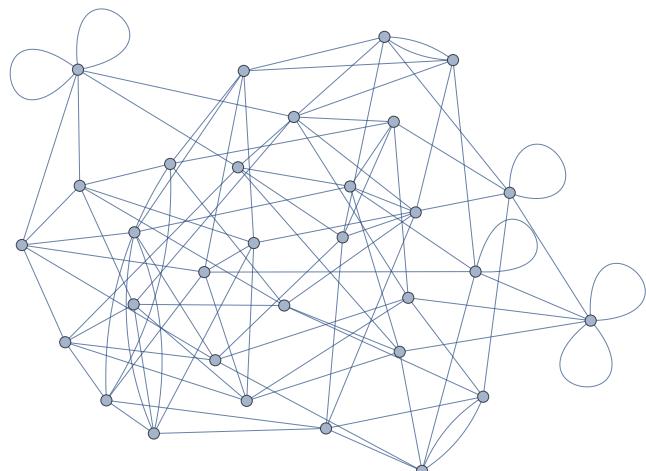
$l = 2$



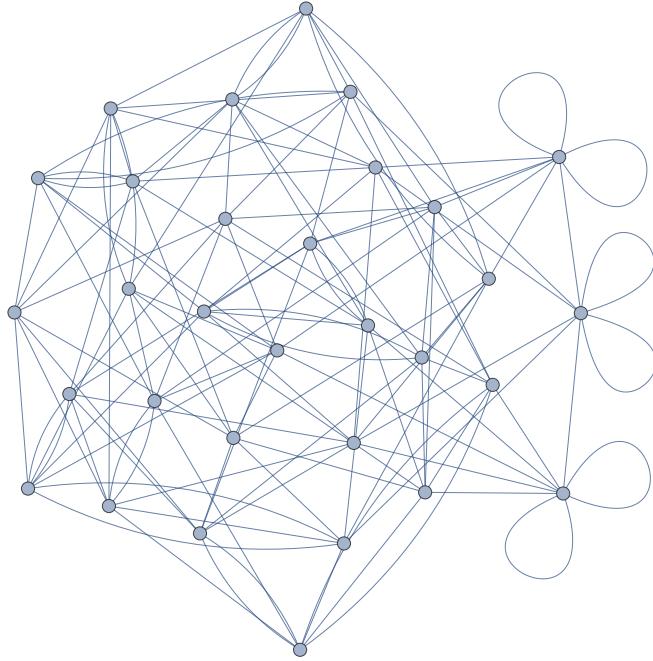
$l = 3$



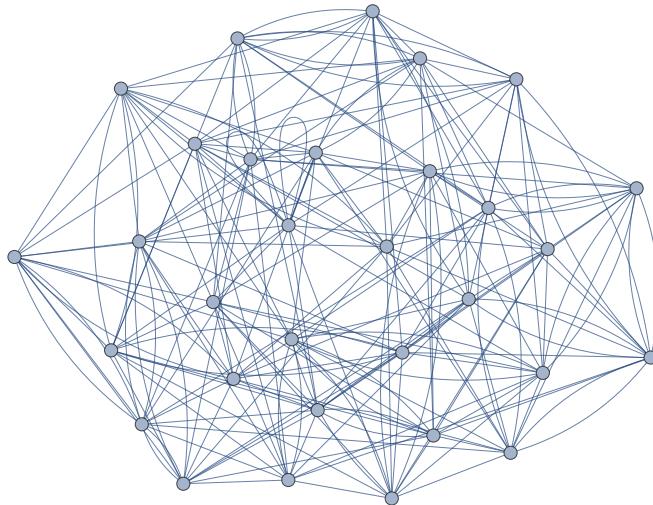
$l = 5$



$l = 7$



$l = 13$

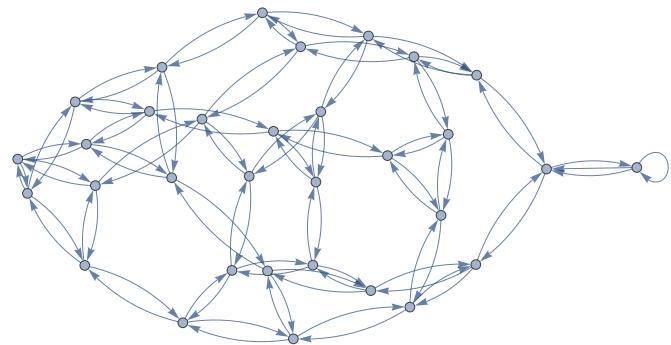



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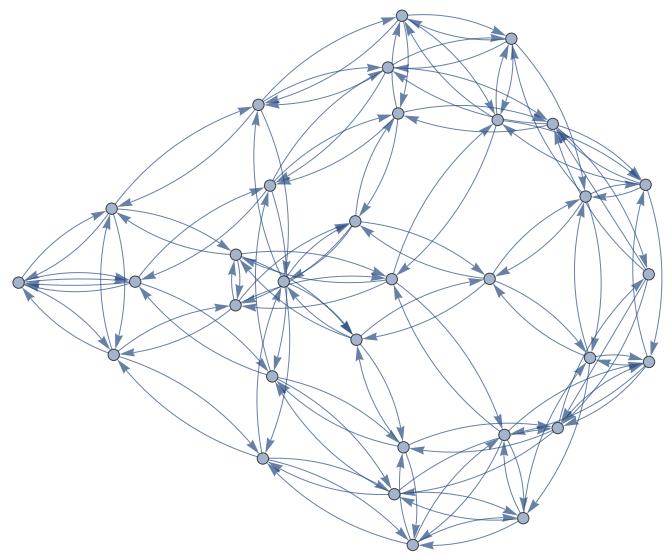
$p = 379$

$$\begin{aligned}
 & (-1728 + j) (-142 + j) (150 + j) (163 + j) (165 + j) (181 + j) (-139 - 188 j + j^2) (-25 - 91 j + j^2) \\
 & (-135 - 59 j + j^2) (-76 - 41 j + j^2) (73 - 20 j + j^2) (-33 + 23 j + j^2) (-27 + 47 j + j^2) (-5 + 57 j + j^2) \\
 & (125 + 68 j + j^2) (51 + 114 j + j^2) (-147 + 152 j + j^2) (184 + 165 j + j^2) (-33 + 180 j + j^2)
 \end{aligned}$$

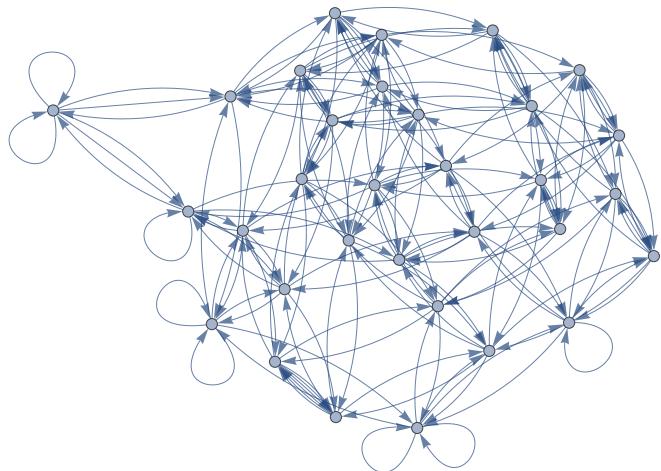
$l = 2$



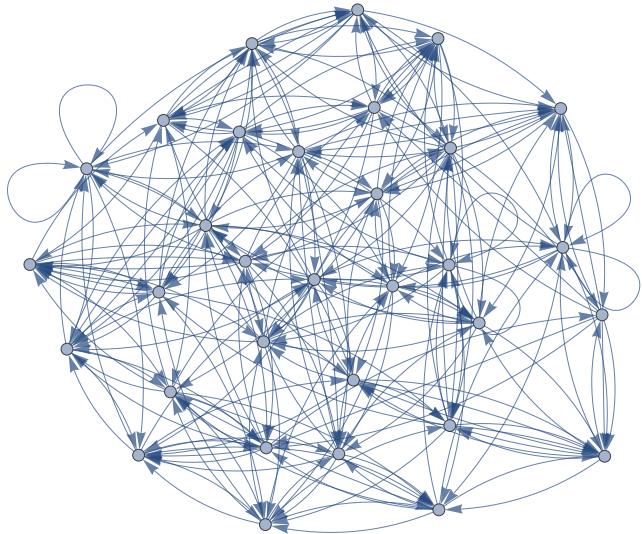
$l = 3$



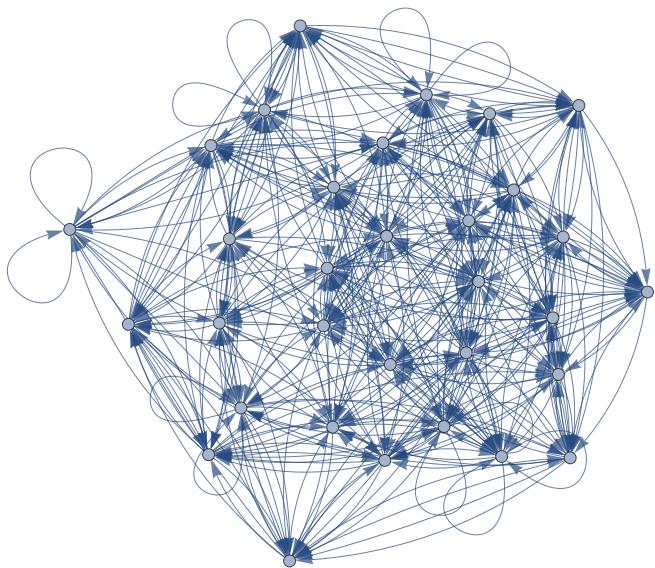
$l = 5$



$l = 7$



$l = 13$

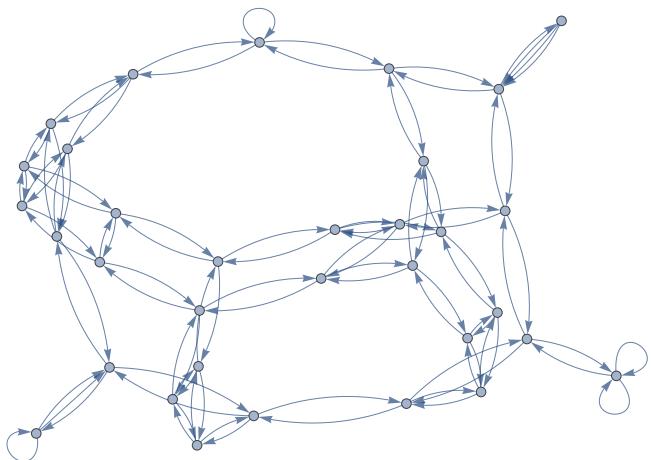



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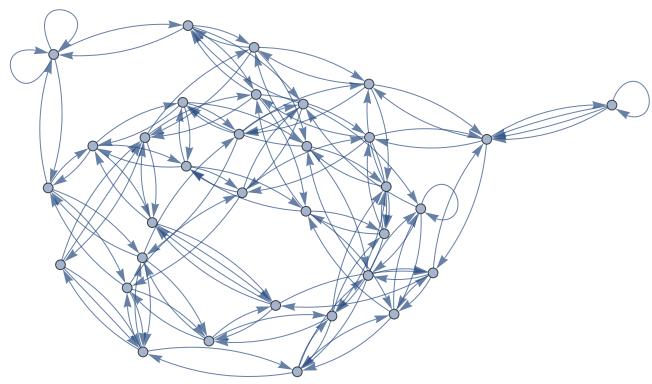
$p = 388$

$$\begin{aligned}
 & (-1728 + j) (-172 + j) (-156 + j) (-128 + j) (-108 + j) (-72 + j) j (1 + j) (3 + j) (6 + j) (8 + j) \\
 & (36 + j) (43 + j) (131 + j) (137 + j) (152 + j) (156 + j) (-27 - 147 j + j^2) (6 - 129 j + j^2) \\
 & (146 - 128 j + j^2) (-173 - j + j^2) (-74 + 76 j + j^2) (-178 + 139 j + j^2) (160 + 141 j + j^2) (92 + 170 j + j^2)
 \end{aligned}$$

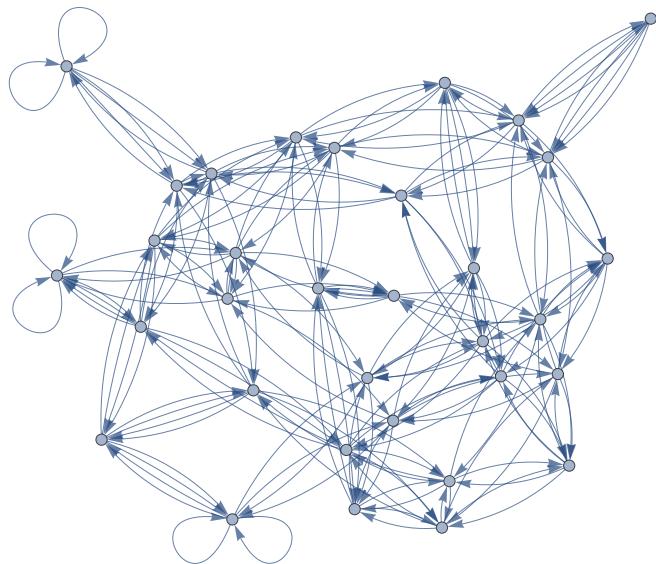
$l = 2$



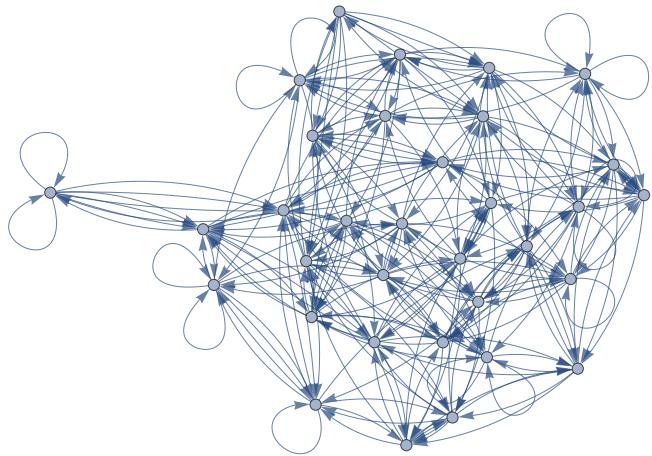
$l = 3$



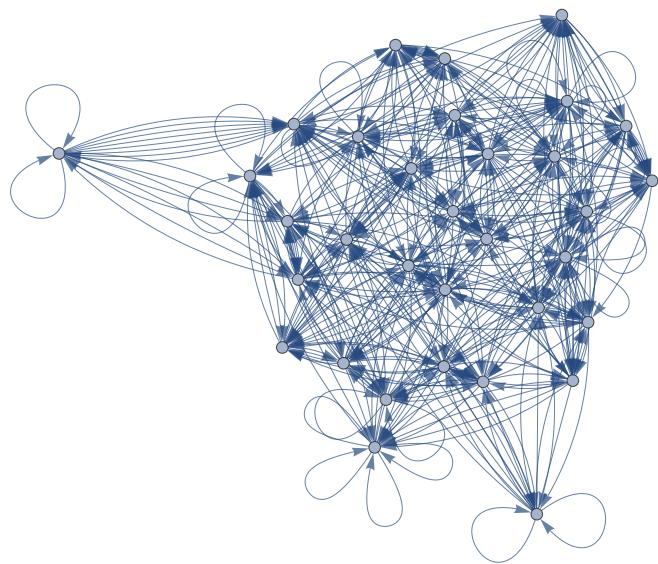
$l = 5$



$l = 7$



$l = 13$

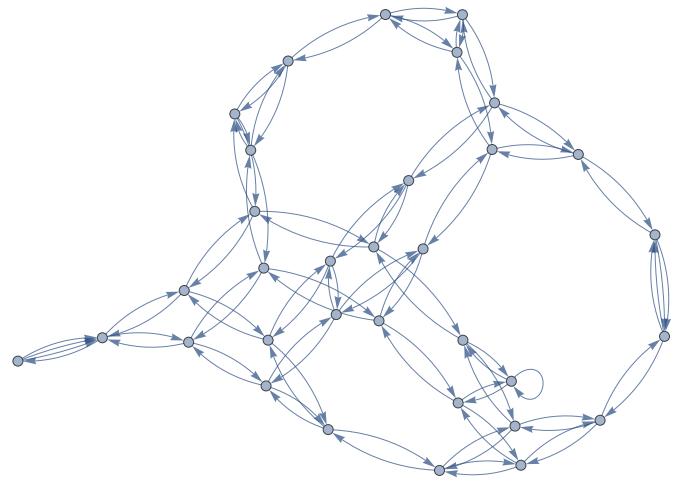



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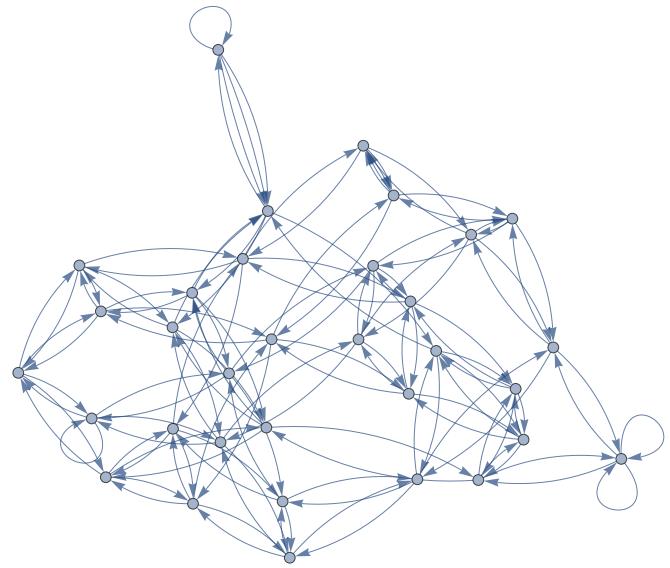
$p = 389$

$$\begin{aligned}
 & (-154 + j) (-121 + j) (-36 + j) (-17 + j) (-16 + j) (-7 + j) j (31 + j) (62 + j) (71 + j) \\
 & (169 + j) (-149 + j^2) (-12 - 179 j + j^2) (57 - 156 j + j^2) (-52 - 96 j + j^2) (-63 + 6 j + j^2) \\
 & (173 + 27 j + j^2) (-45 + 43 j + j^2) (36 + 84 j + j^2) (-15 + 91 j + j^2) (99 + 93 j + j^2) (59 + 165 j + j^2)
 \end{aligned}$$

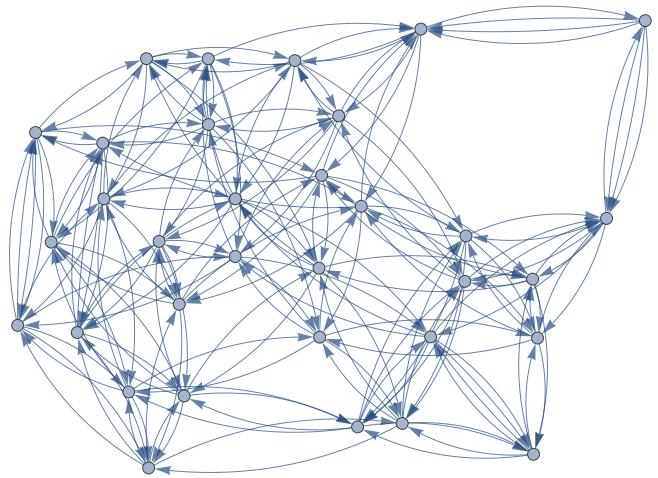
$l = 2$



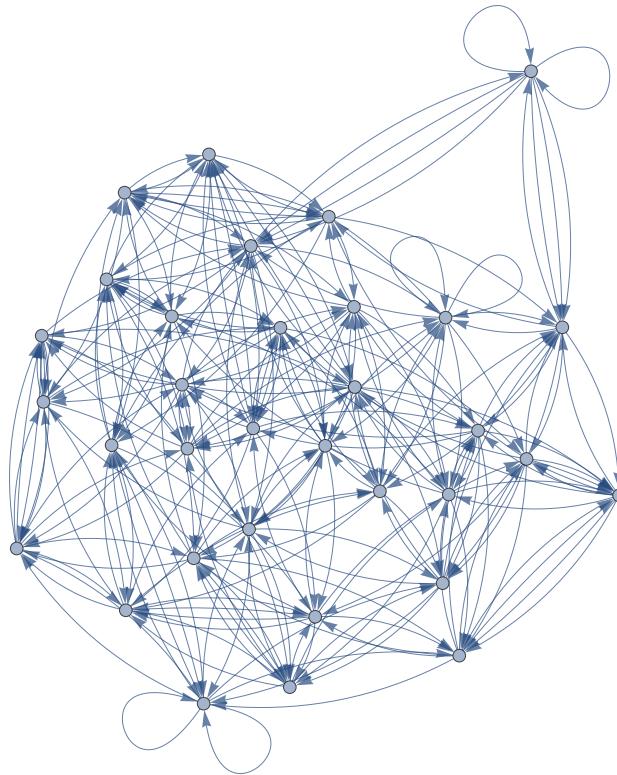
$l = 3$



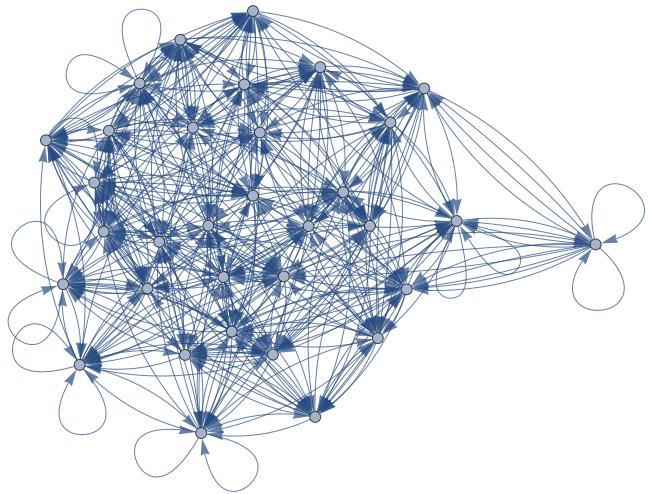
$l = 5$



$l = 7$



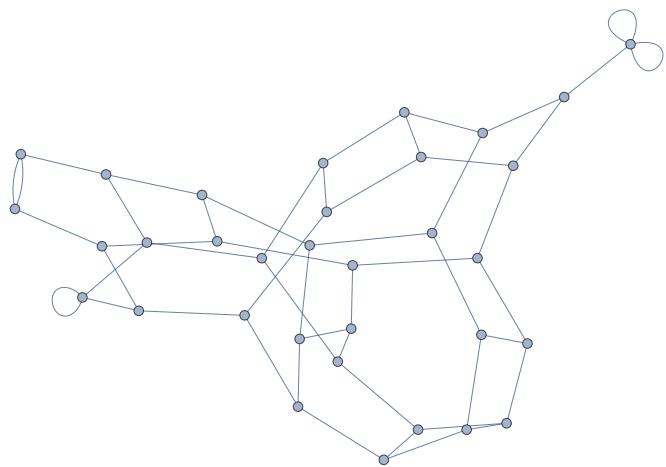
$l = 13$



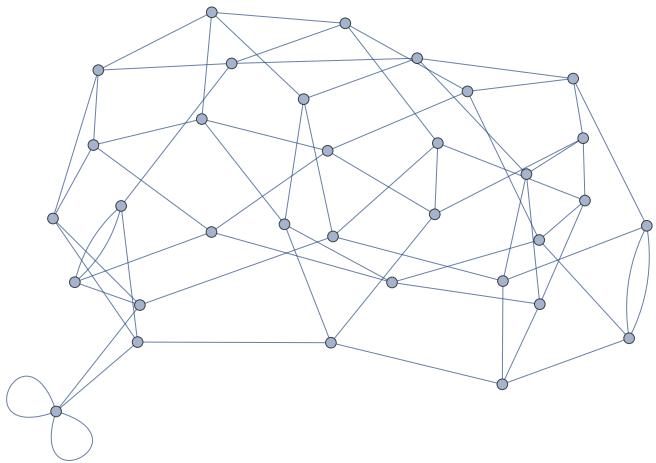
$p = 397$

$$\begin{aligned} & (-198 + j) \ (-60 + j) \ (124 + j) \ (125 - 127 j + j^2) \ (65 - 36 j + j^2) \ (103 - 23 j + j^2) \ (-110 - 4 j + j^2) \\ & (151 - 3 j + j^2) \ (-62 + 48 j + j^2) \ (95 + 68 j + j^2) \ (-95 + 75 j + j^2) \ (115 + 94 j + j^2) \ (157 + 98 j + j^2) \\ & (43 + 118 j + j^2) \ (68 + 119 j + j^2) \ (-171 + 182 j + j^2) \ (142 + 182 j + j^2) \ (-108 + 197 j + j^2) \end{aligned}$$

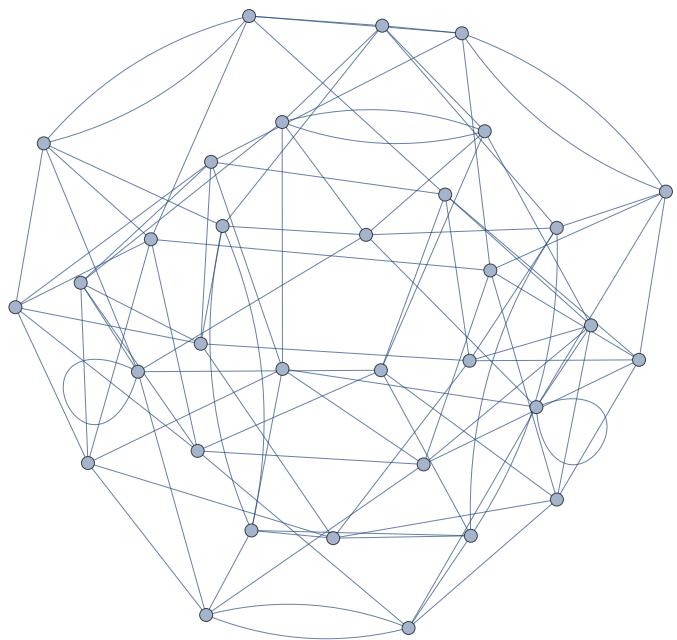
$l = 2$



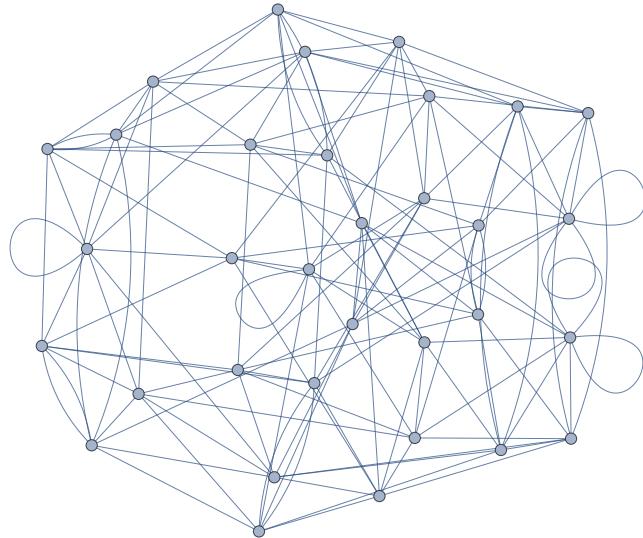
$l = 3$



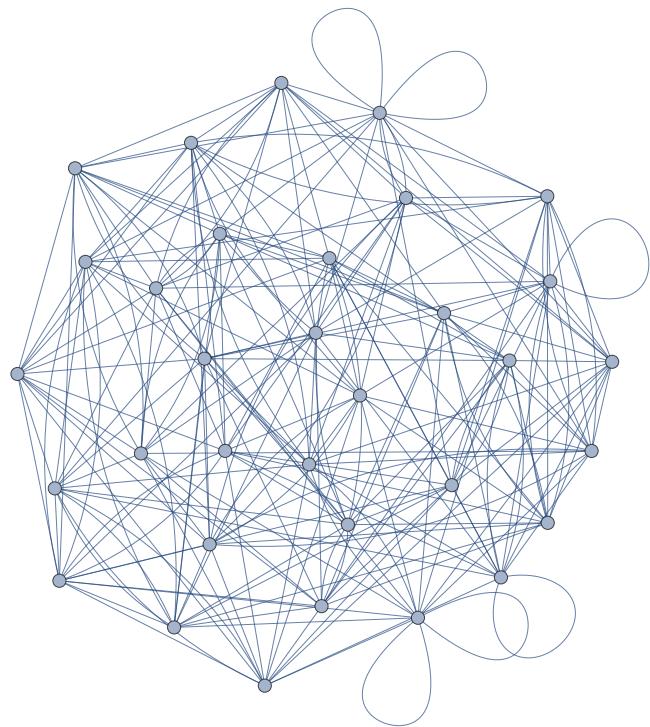
$l = 5$



$l = 7$



$l = 13$

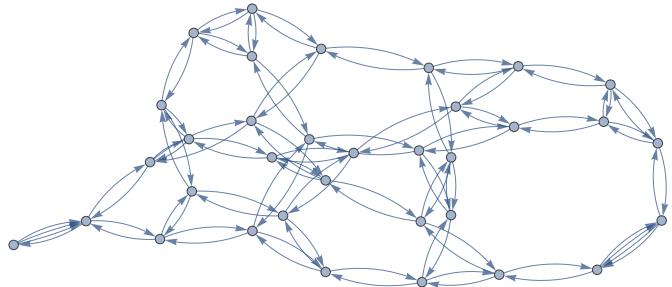



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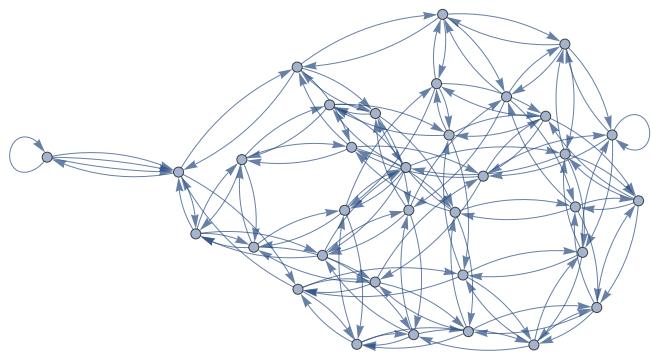
$p = 401$

$$\begin{aligned}
 & (-195 + j) (-100 + j) (-57 + j) j (13 + j) (24 + j) (110 + j) (130 + j) (135 + j) (157 + j) \\
 & (79 - 161 j + j^2) (-14 - 159 j + j^2) (-17 - 155 j + j^2) (84 - 83 j + j^2) (157 - 25 j + j^2) (186 + j + j^2) \\
 & (24 + 2 j + j^2) (25 + 40 j + j^2) (24 + 45 j + j^2) (-90 + 79 j + j^2) (-107 + 126 j + j^2) (-142 + 133 j + j^2)
 \end{aligned}$$

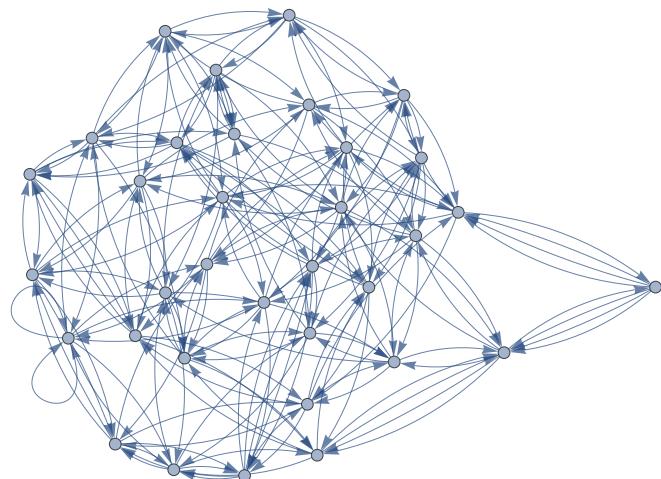
$l = 2$



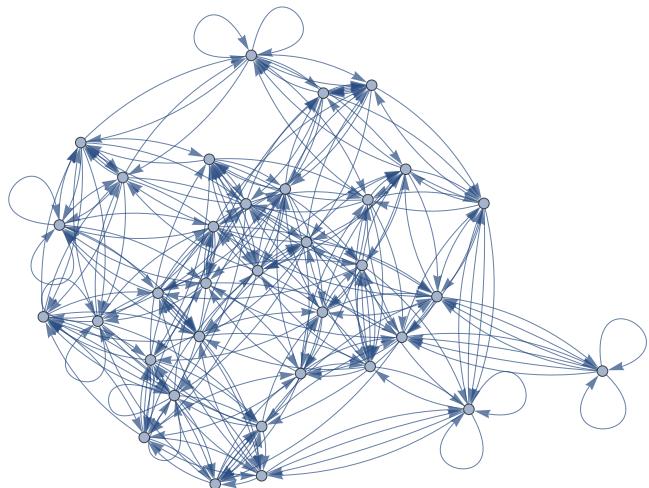
$l = 3$



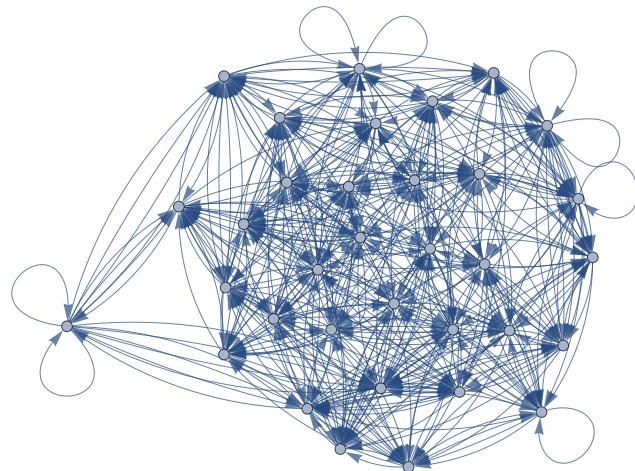
$l = 5$



$l = 7$



$l = 13$

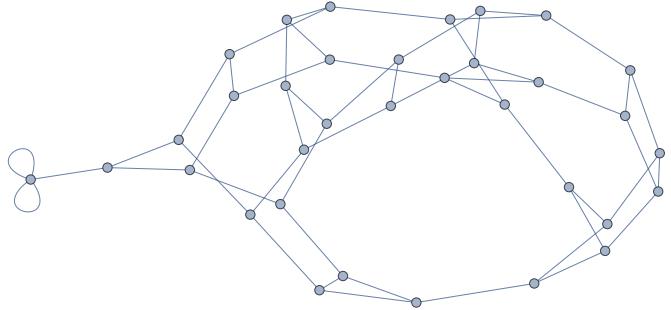



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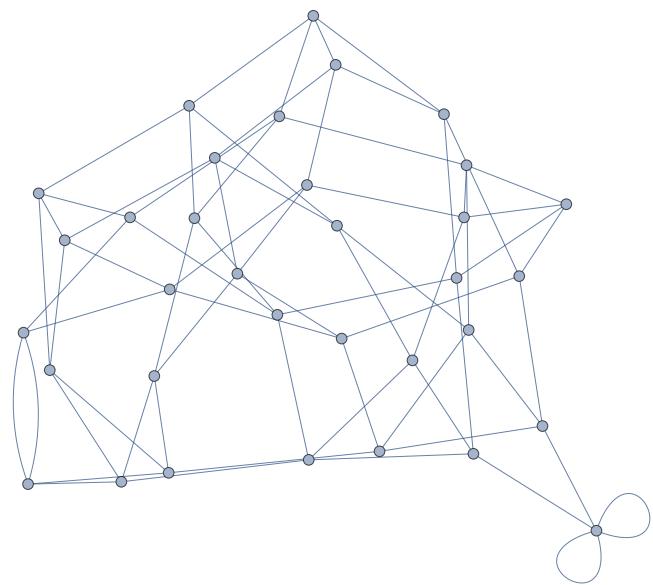
$p = 409$

$$\begin{aligned}
 & (-121 + j) (-106 + j) (40 + j) (48 + j) (63 + j) (69 + j) (103 + j) \\
 & (162 + j) (-114 + j^2) (-82 - 160j + j^2) (-31 - 159j + j^2) (-78 - 118j + j^2) \\
 & (92 - 117j + j^2) (146 - 69j + j^2) (68 - 23j + j^2) (196 - 5j + j^2) (-134 + 7j + j^2) \\
 & (-106 + 58j + j^2) (-125 + 87j + j^2) (-58 + 125j + j^2) (162 + 176j + j^2)
 \end{aligned}$$

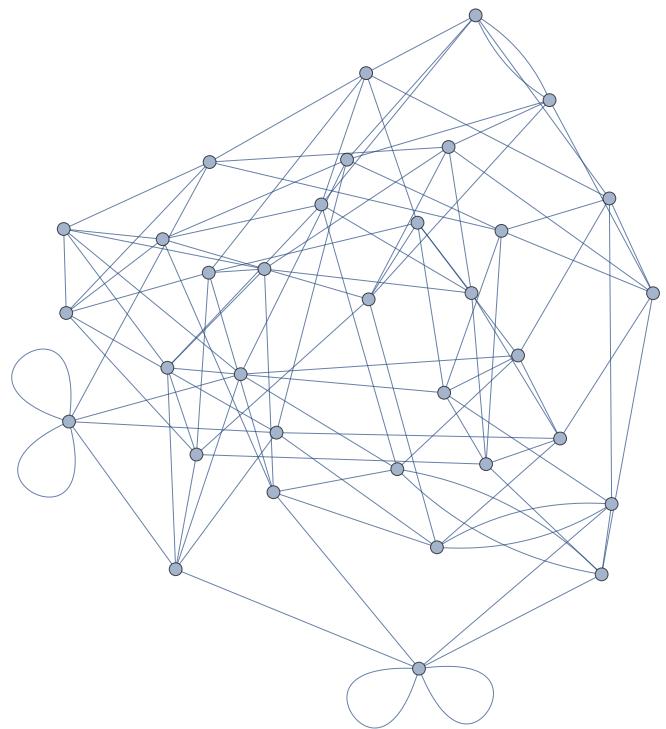
$l = 2$



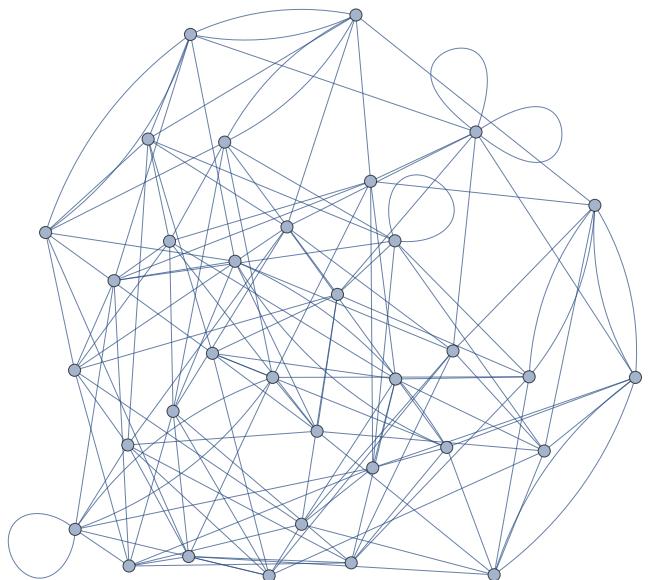
$l = 3$



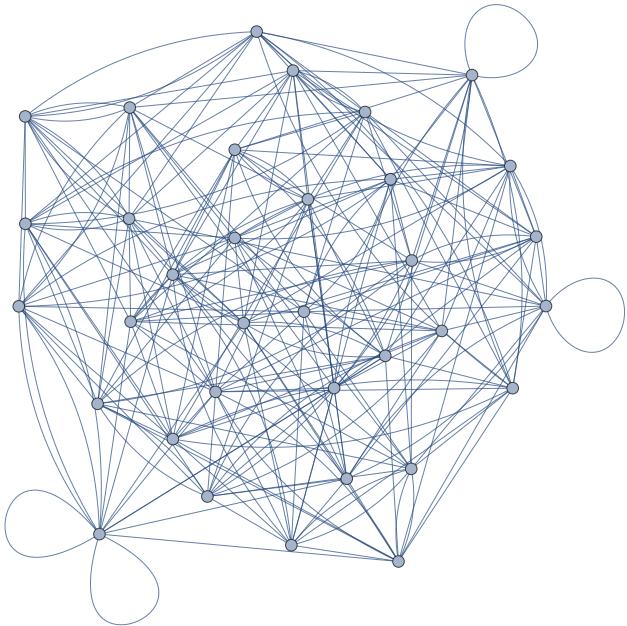
$l = 5$



$l = 7$



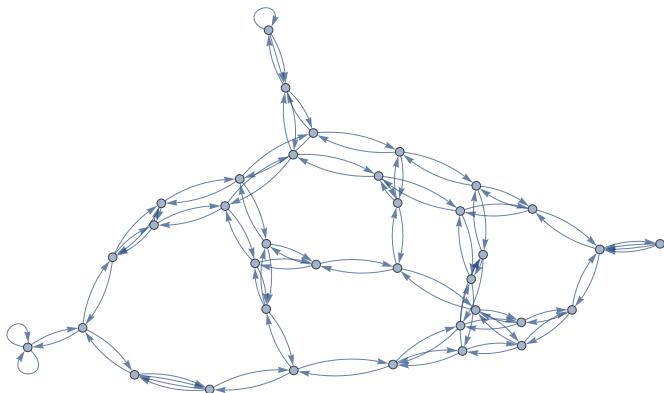
$l = 13$



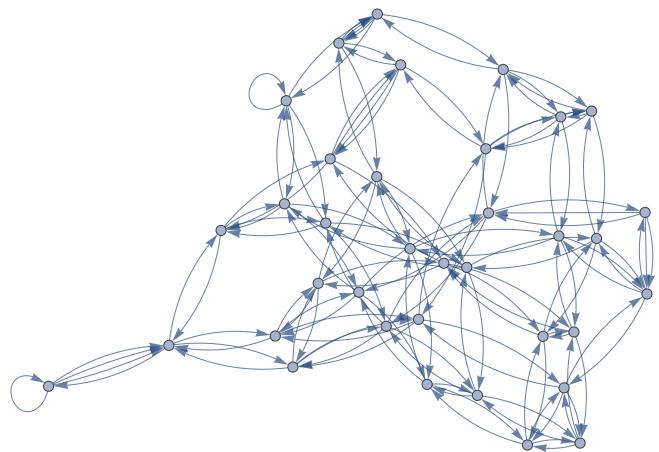
$p = 419$

$$\begin{aligned} & (-1728 + j) (-184 + j) (-180 + j) (-106 + j) (-98 + j) (-62 + j) (-48 + j) \\ & (-13 + j) j (12 + j) (23 + j) (51 + j) (52 + j) (63 + j) (65 + j) (111 + j) (131 + j) \\ & (145 + j) (-33 - 61 j + j^2) (-24 - 57 j + j^2) (-206 - 16 j + j^2) (-1 + 15 j + j^2) \\ & (206 + 59 j + j^2) (-76 + 87 j + j^2) (53 + 136 j + j^2) (99 + 172 j + j^2) (188 + 208 j + j^2) \end{aligned}$$

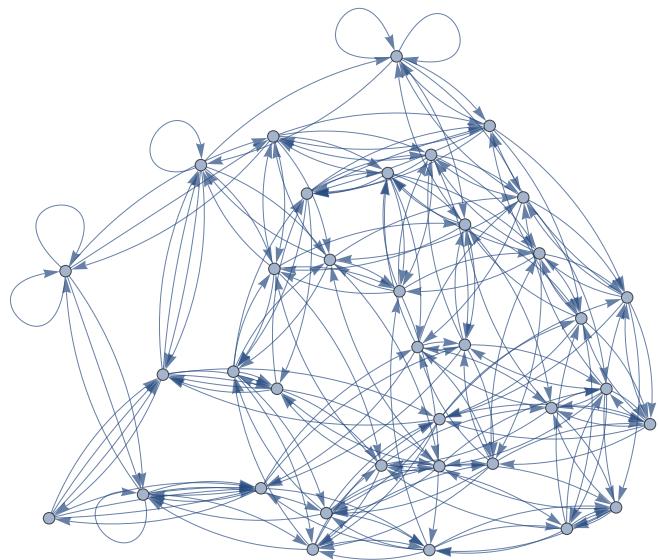
$l = 2$



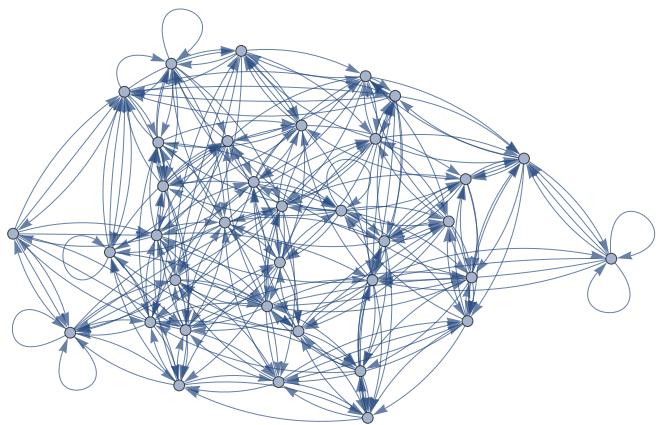
$l = 3$



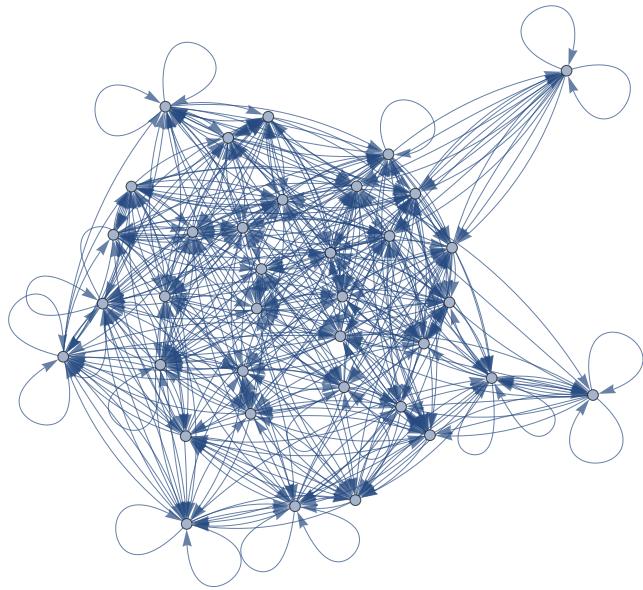
$l = 5$



$l = 7$



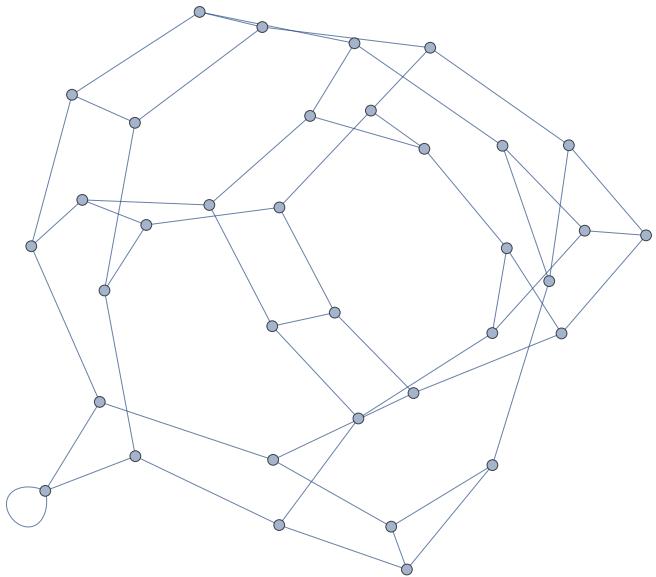
$l = 13$



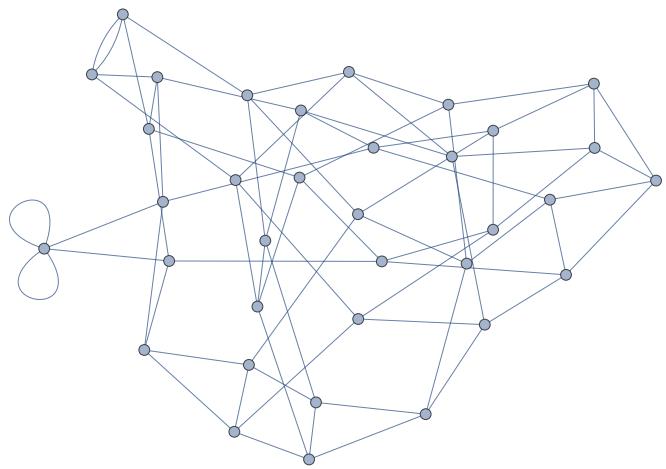
$p = 421$

$$\begin{aligned}
 & (-206 + j) (-205 + j) (-203 + j) (-131 + j) (-1 + j) (115 - 191 j + j^2) \\
 & (-85 - 180 j + j^2) (-198 - 111 j + j^2) (-78 - 90 j + j^2) (-152 - 28 j + j^2) \\
 & (-27 - 22 j + j^2) (8 - 15 j + j^2) (202 - 9 j + j^2) (-162 - 6 j + j^2) (-151 + 5 j + j^2) \\
 & (13 + 51 j + j^2) (55 + 88 j + j^2) (-115 + 98 j + j^2) (-179 + 181 j + j^2) (202 + 193 j + j^2)
 \end{aligned}$$

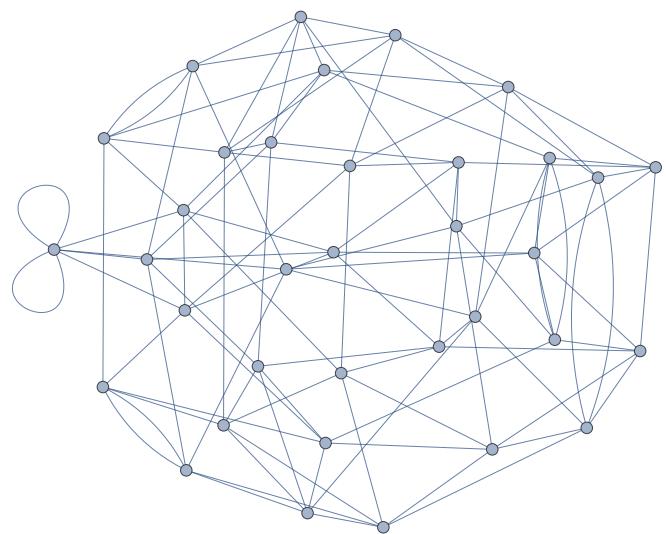
$l = 2$



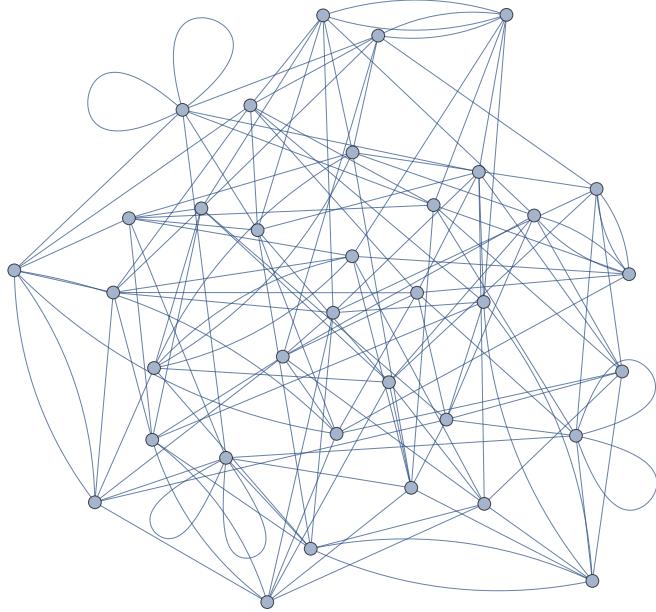
$l = 3$



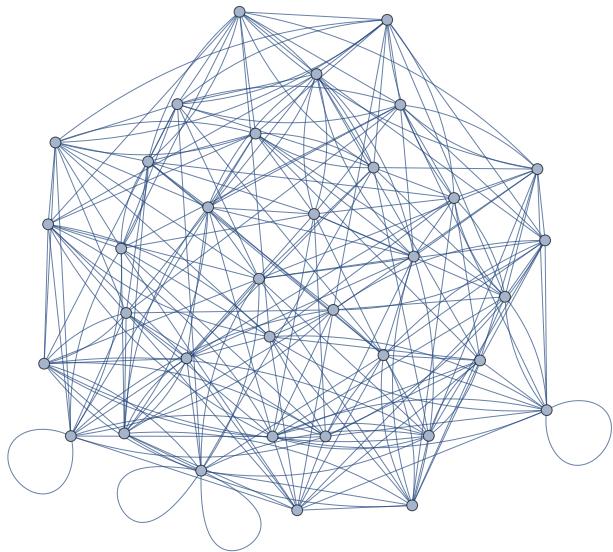
$l = 5$



$l = 7$



$l = 13$

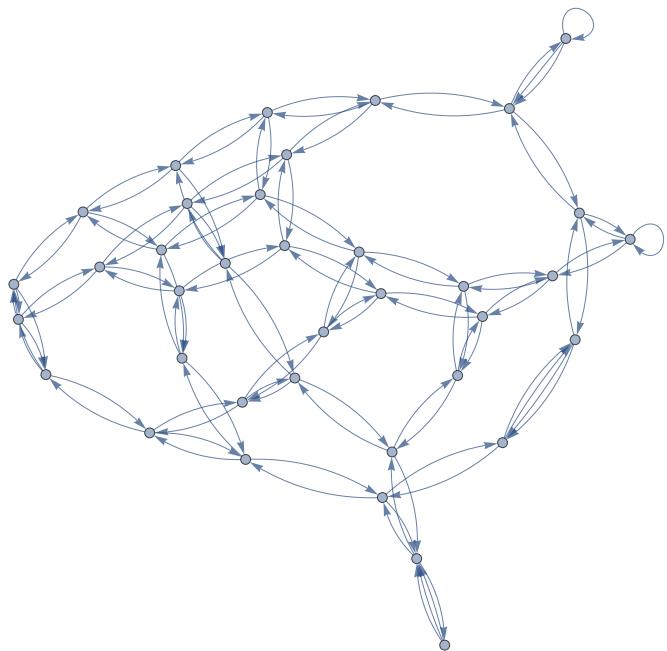



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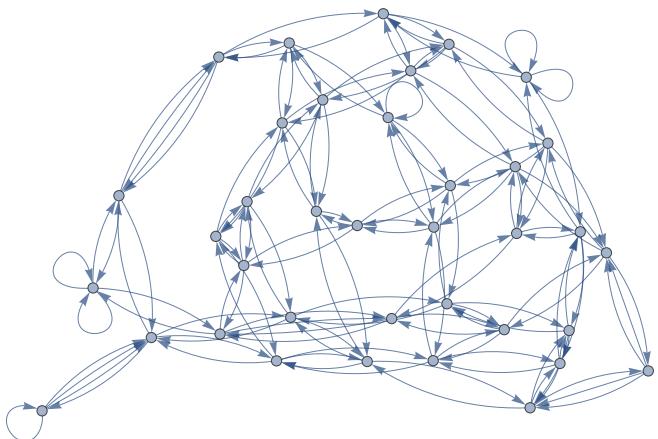
$p = 431$

$$\begin{aligned}
 & (-1728 + j) (-189 + j) (-150 + j) (-143 + j) (-125 + j) (-107 + j) (-102 + j) (-67 + j) \\
 & (-61 + j) (-19 + j) j (9 + j) (12 + j) (50 + j) (73 + j) (75 + j) (112 + j) (115 + j) \\
 & (189 + j) (190 + j) (197 + j) (-152 - 199 j + j^2) (-70 - 177 j + j^2) (11 - 130 j + j^2) \\
 & (134 + 10 j + j^2) (138 + 51 j + j^2) (148 + 104 j + j^2) (95 + 149 j + j^2) (-149 + 195 j + j^2)
 \end{aligned}$$

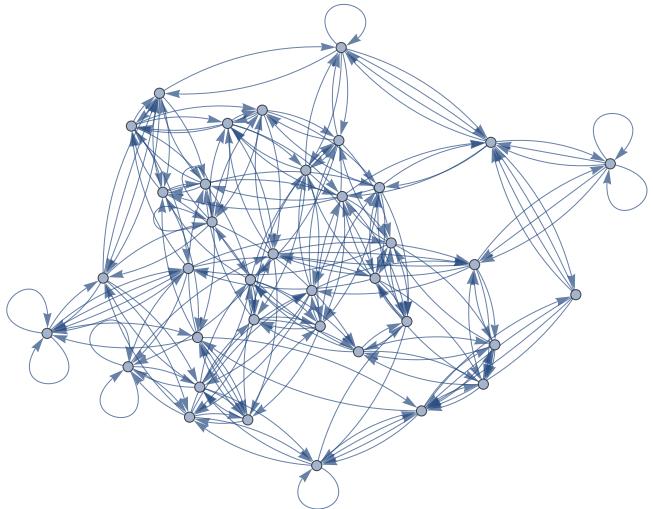
$l = 2$



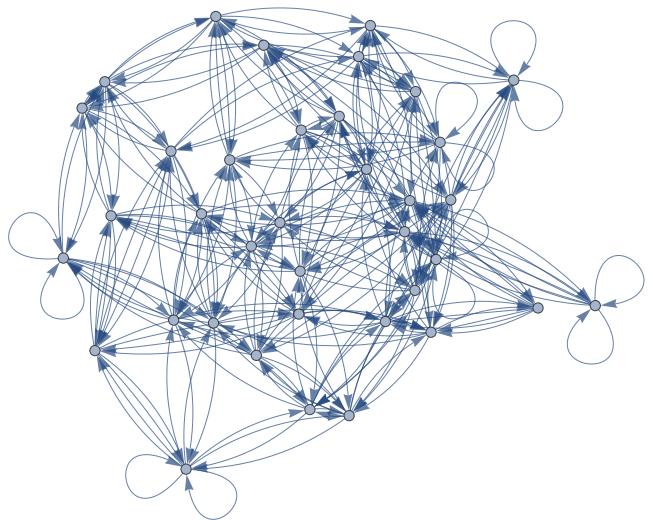
$l = 3$



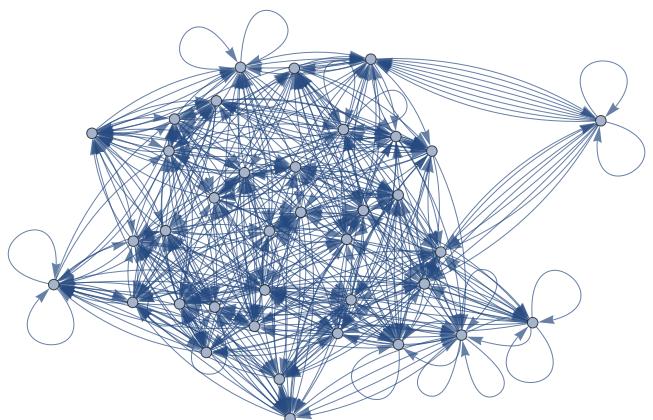
$l = 5$



$l = 7$



$l = 13$

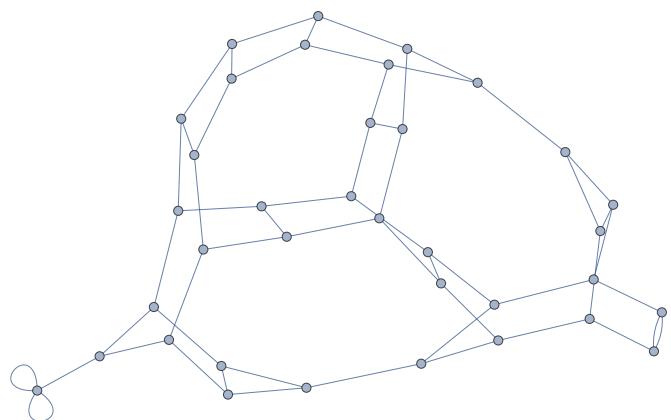


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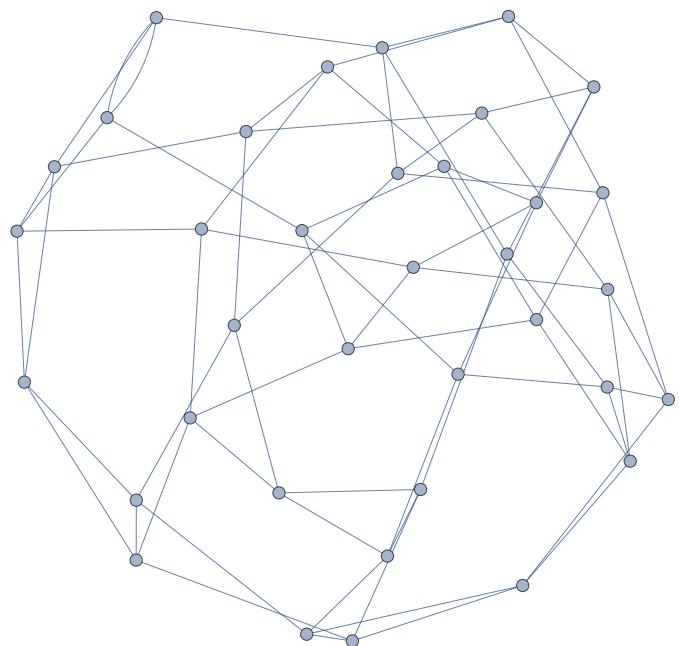
p = 433

$$\begin{aligned} & (-89 + j) (-73 + j) (90 + j) (117 + j) (179 + j) (198 + j) (151 + j^2) \\ & (69 - 204 j + j^2) (180 - 161 j + j^2) (-157 - 160 j + j^2) (-133 - 119 j + j^2) \\ & (117 - 108 j + j^2) (-86 - 94 j + j^2) (-146 - 73 j + j^2) (-37 - 66 j + j^2) (-182 + 28 j + j^2) \\ & (16 + 30 j + j^2) (-178 + 72 j + j^2) (-37 + 77 j + j^2) (-133 + 200 j + j^2) (141 + 216 j + j^2) \end{aligned}$$

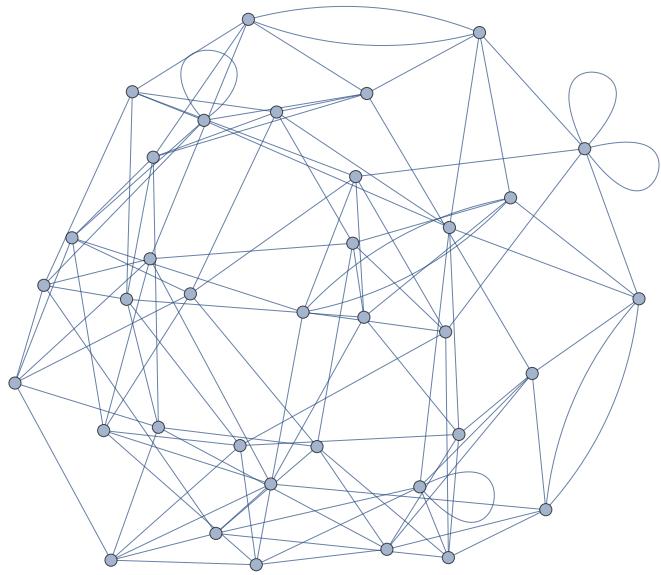
l = 2



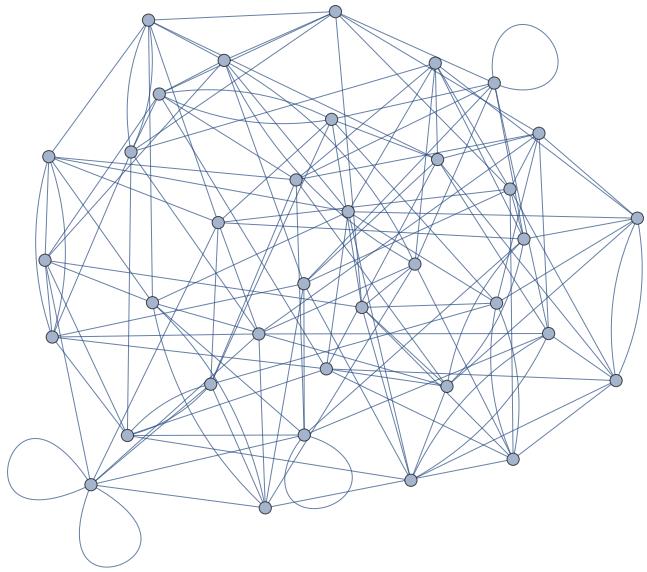
l = 3



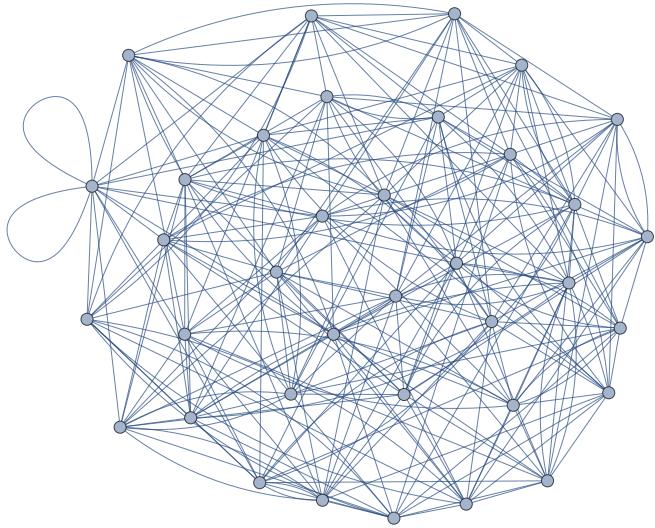
l = 5



$l = 7$



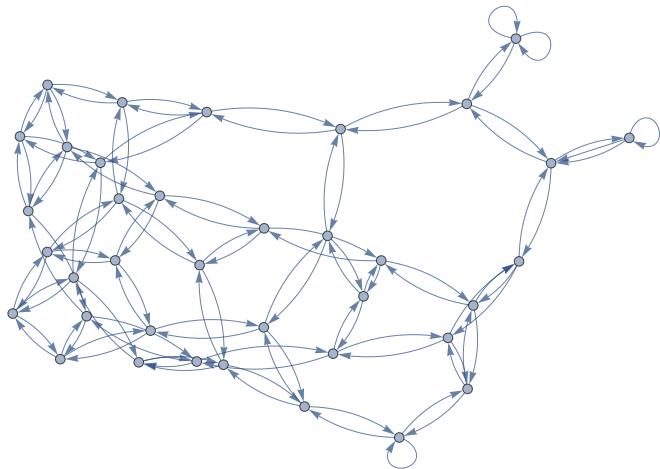
$l = 13$



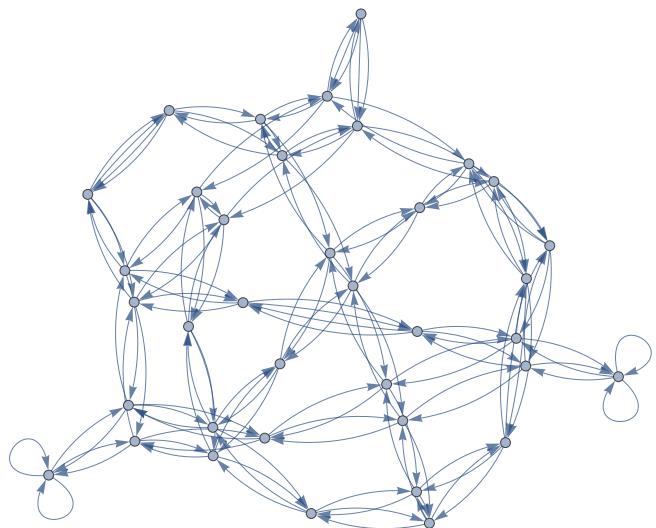
$p = 439$

$$\begin{aligned} & (-1728 + j) (-157 + j) (-137 + j) (-126 + j) (-98 + j) (-81 + j) (4 + j) (49 + j) \\ & (64 + j) (94 + j) (128 + j) (151 + j) (168 + j) (192 + j) (215 + j) (-216 - 172 j + j^2) \\ & (4 - 170 j + j^2) (-48 - 117 j + j^2) (216 - 10 j + j^2) (7 + 88 j + j^2) (49 + 92 j + j^2) \\ & (-216 + 107 j + j^2) (-61 + 120 j + j^2) (-9 + 159 j + j^2) (103 + 171 j + j^2) (-168 + 190 j + j^2) \end{aligned}$$

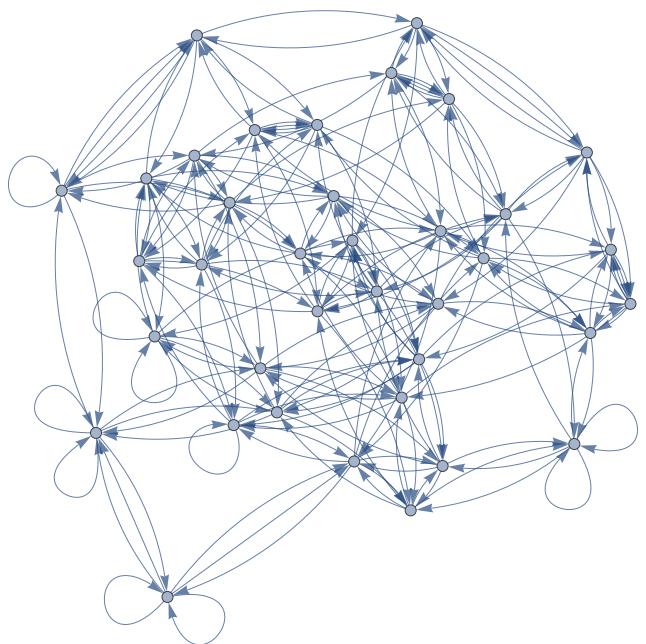
$l = 2$



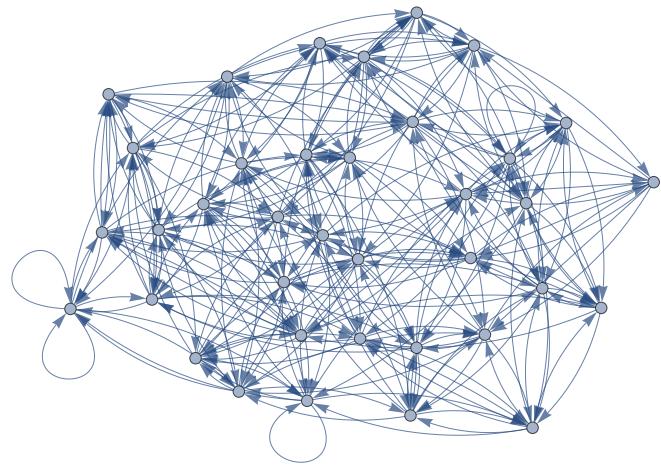
$l = 3$



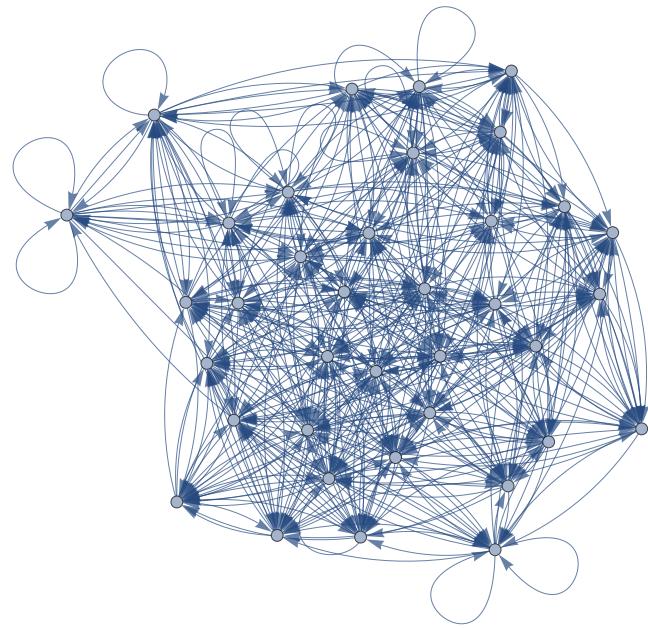
$l = 5$



$l = 7$



$l = 13$

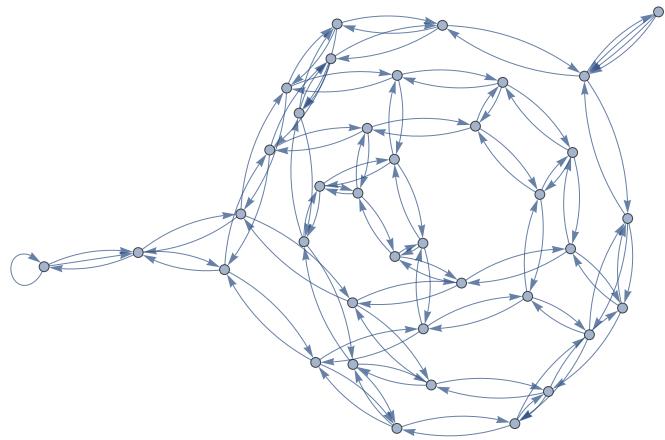



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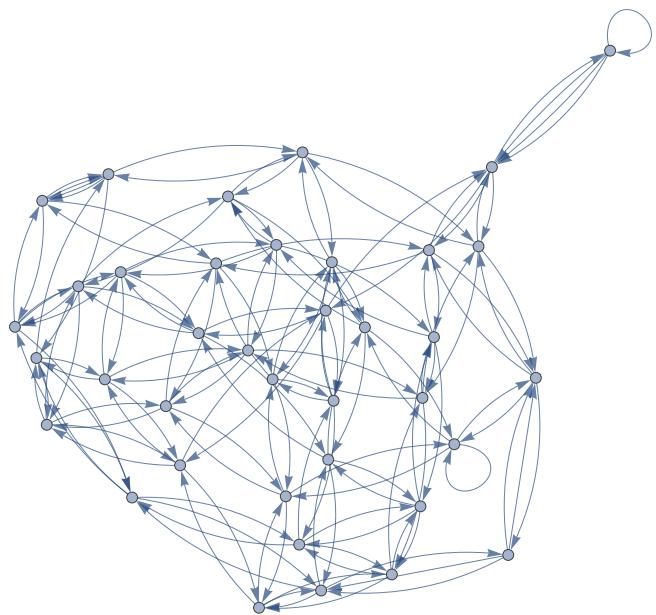
$p = 443$

$$\begin{aligned}
 & (-1728 + j) (-174 + j) (-141 + j) (-132 + j) j (11 + j) (46 + j) (66 + j) \\
 & (152 + j) (186 + j) (167 + j^2) (-3 - 219 j + j^2) (-158 - 205 j + j^2) (21 - 28 j + j^2) \\
 & (-123 - 4 j + j^2) (165 - 4 j + j^2) (-95 + 42 j + j^2) (-173 + 76 j + j^2) (9 + 82 j + j^2) \\
 & (96 + 83 j + j^2) (-135 + 102 j + j^2) (-170 + 157 j + j^2) (138 + 164 j + j^2) (72 + 221 j + j^2)
 \end{aligned}$$

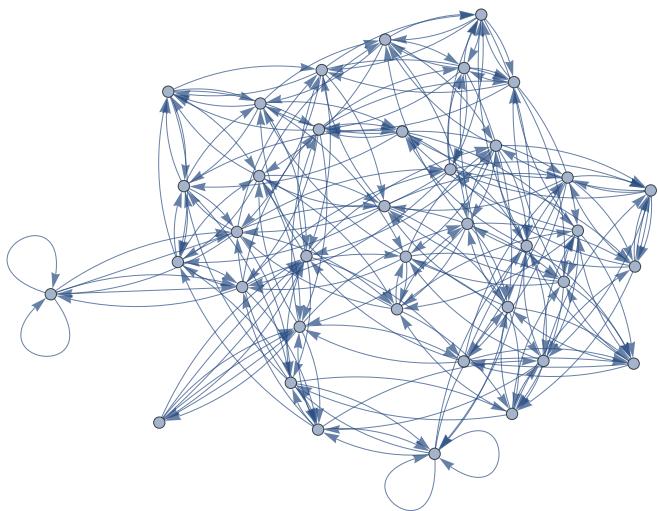
$l = 2$



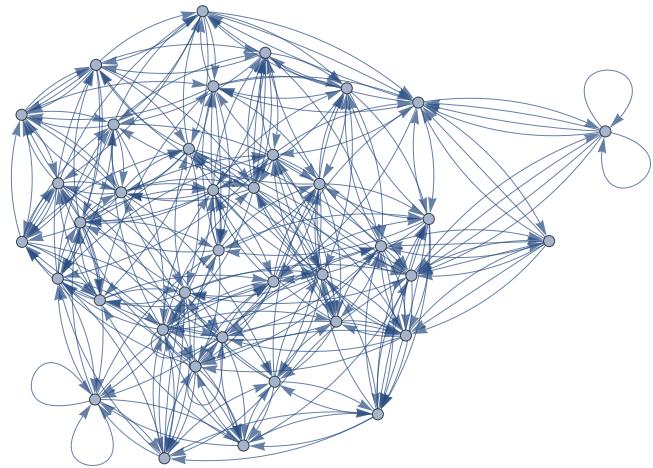
$l = 3$



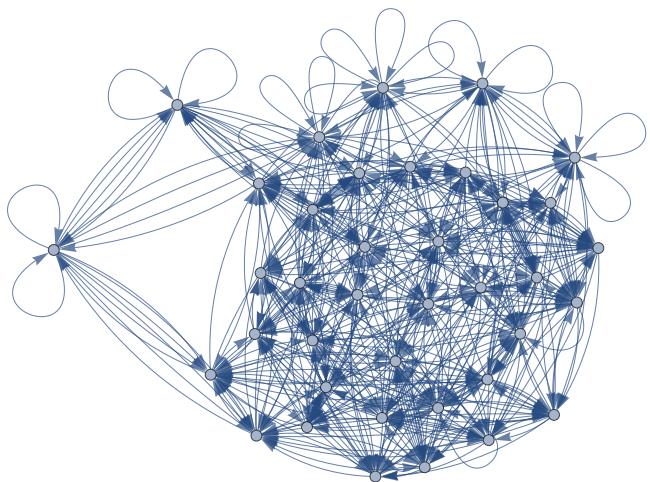
$l = 5$



$l = 7$



$l = 13$

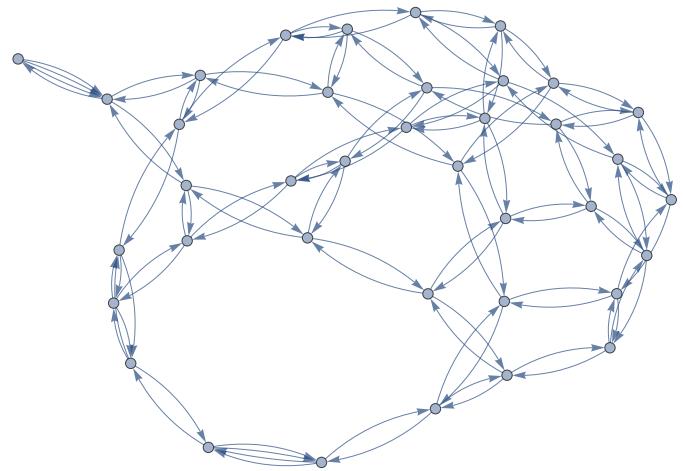


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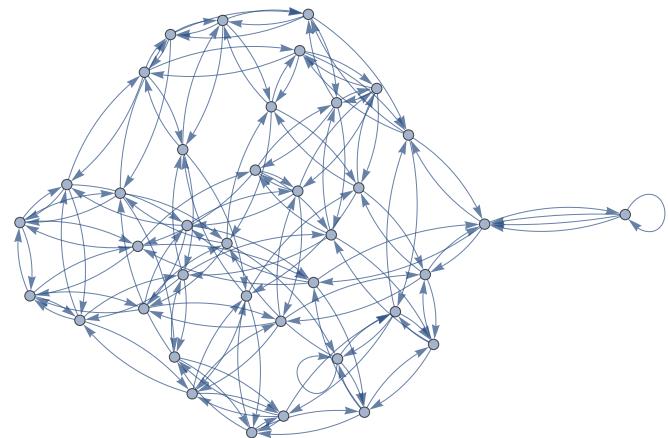
p = 449

$$\begin{aligned} & (-120 + j) (-97 + j) (-91 + j) (-15 + j) j (95 + j) (105 + j) (111 + j) (206 + j) \\ & (217 + j) (-88 - 219 j + j^2) (-73 - 169 j + j^2) (154 - 150 j + j^2) (-146 - 126 j + j^2) \\ & (-27 - 118 j + j^2) (158 - 104 j + j^2) (34 - 85 j + j^2) (-53 - 54 j + j^2) (143 - 38 j + j^2) \\ & (197 + 54 j + j^2) (20 + 123 j + j^2) (-214 + 156 j + j^2) (124 + 164 j + j^2) (-78 + 215 j + j^2) \end{aligned}$$

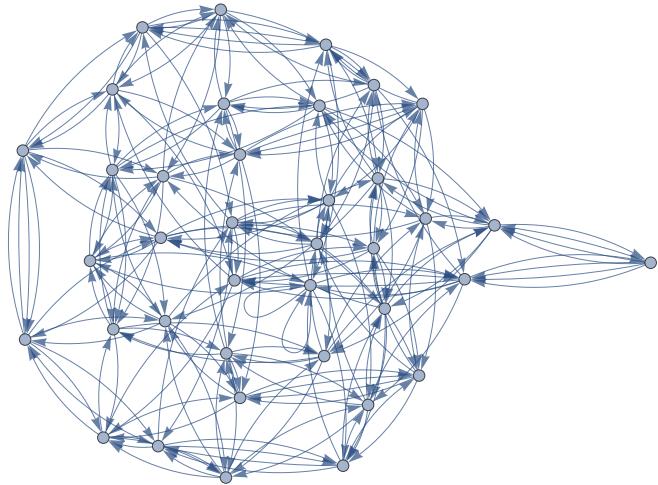
l = 2



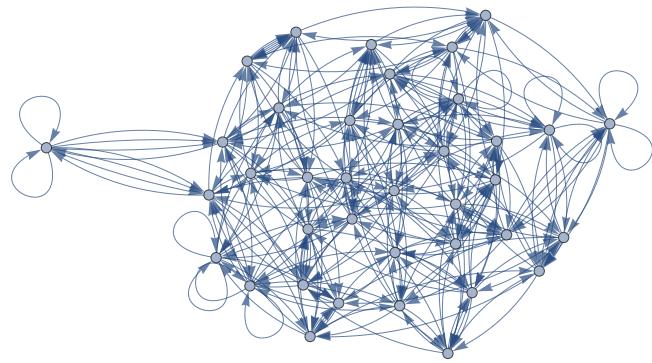
l = 3



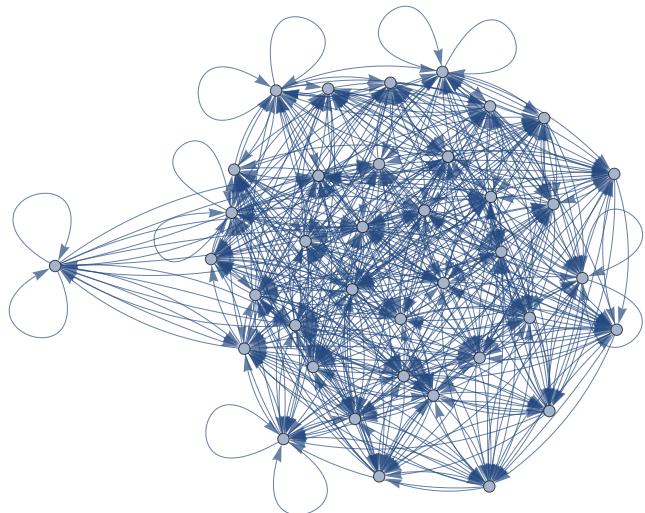
l = 5



$l = 7$



$l = 13$

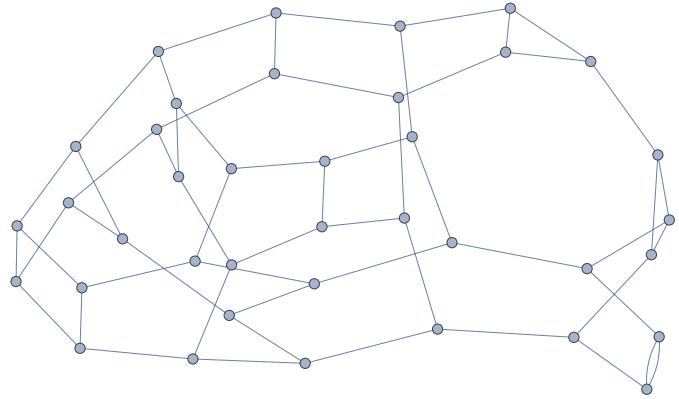


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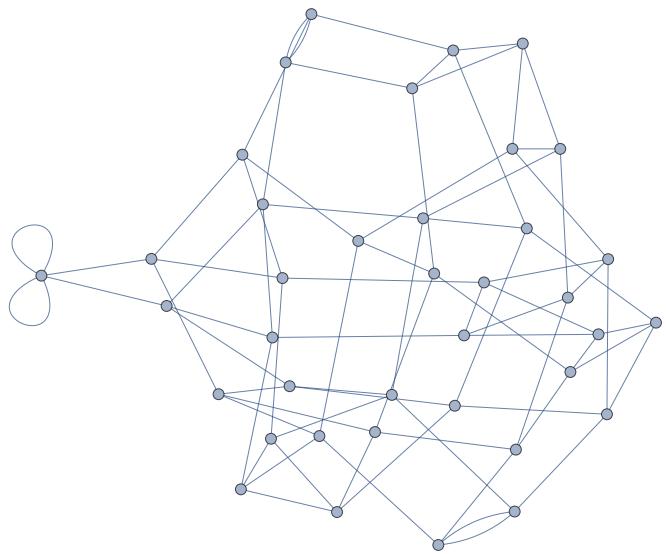
$p = 457$

$$\begin{aligned}
& (-136 + j) \ (-113 + j) \ (-5 + j) \ (8 + j) \ (2 - 195 j + j^2) \ (-37 - 153 j + j^2) \\
& (-64 - 93 j + j^2) \ (-80 - 63 j + j^2) \ (228 - 59 j + j^2) \ (-183 - 42 j + j^2) \ (-32 - j + j^2) \\
& (170 + j + j^2) \ (-182 + 17 j + j^2) \ (-86 + 27 j + j^2) \ (27 + 31 j + j^2) \ (2 + 62 j + j^2) \\
& (42 + 67 j + j^2) \ (-210 + 92 j + j^2) \ (22 + 190 j + j^2) \ (-136 + 203 j + j^2) \ (160 + 222 j + j^2)
\end{aligned}$$

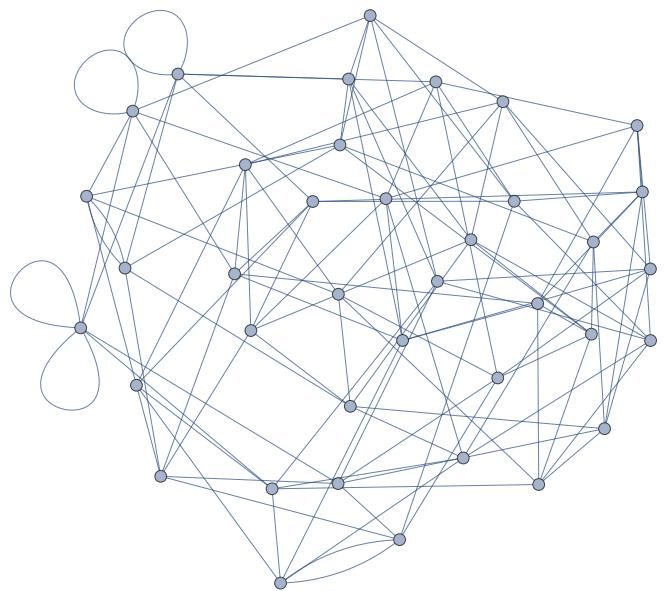
$l = 2$



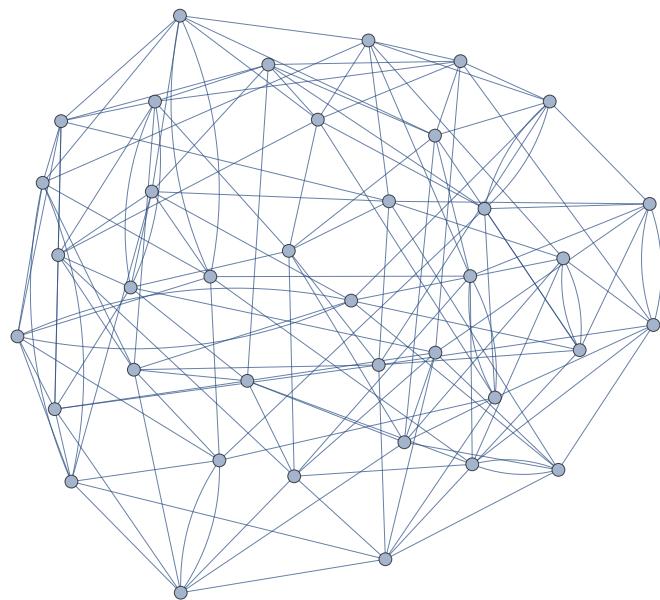
$l = 3$



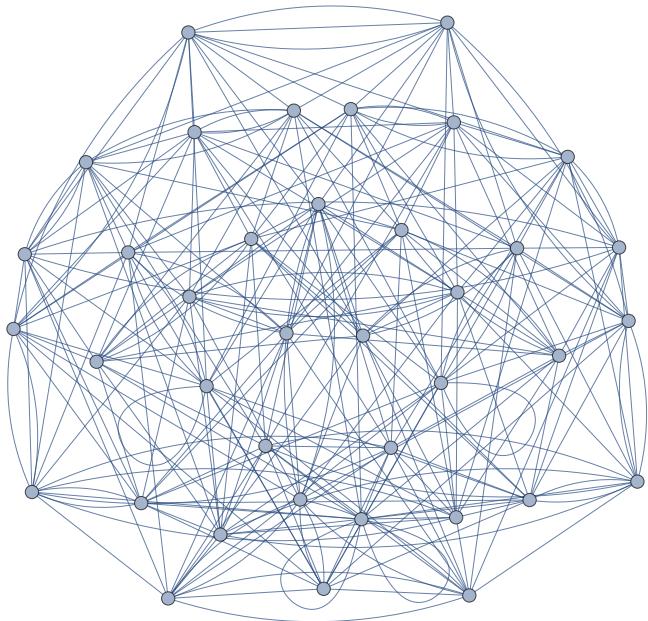
$l = 5$



$l = 7$



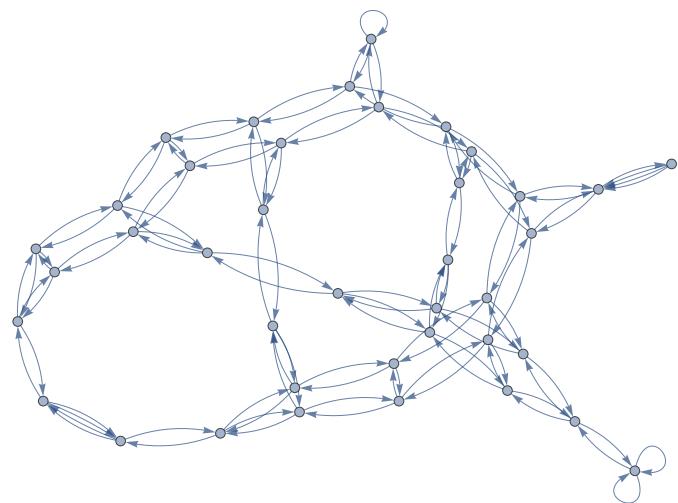
$l = 13$



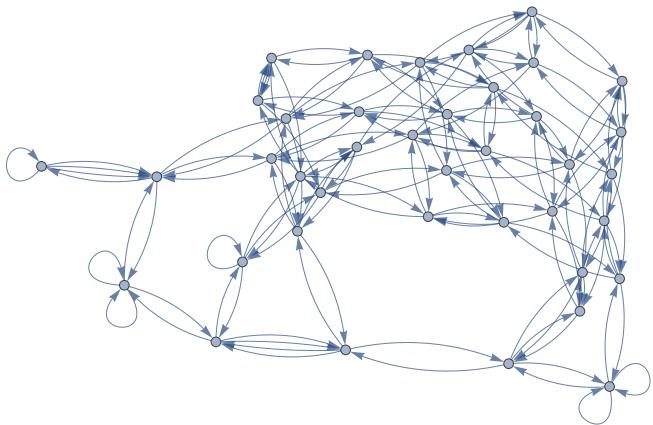
$p = 461$

$$\begin{aligned}
 & (-197 + j) (-163 + j) (-148 + j) (-127 + j) (-93 + j) (-63 + j) (-62 + j) (-31 + j) j \\
 & (37 + j) (45 + j) (76 + j) (119 + j) (148 + j) (163 + j) (-114 - 196 j + j^2) (-72 - 159 j + j^2) \\
 & (-145 - 152 j + j^2) (-223 - 143 j + j^2) (-111 - 66 j + j^2) (-68 - 47 j + j^2) (17 + 13 j + j^2) \\
 & (2 + 96 j + j^2) (-218 + 98 j + j^2) (85 + 98 j + j^2) (121 + 152 j + j^2) (-125 + 201 j + j^2)
 \end{aligned}$$

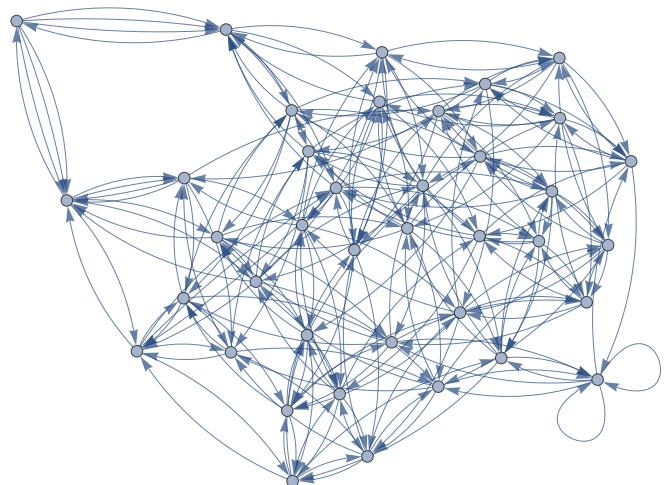
$l = 2$



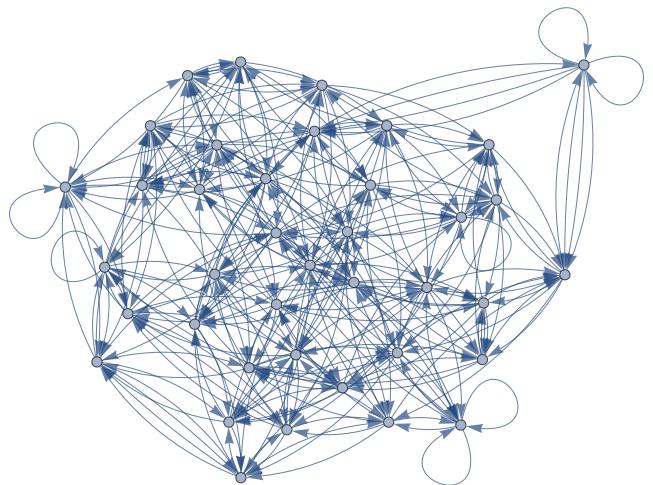
$l = 3$



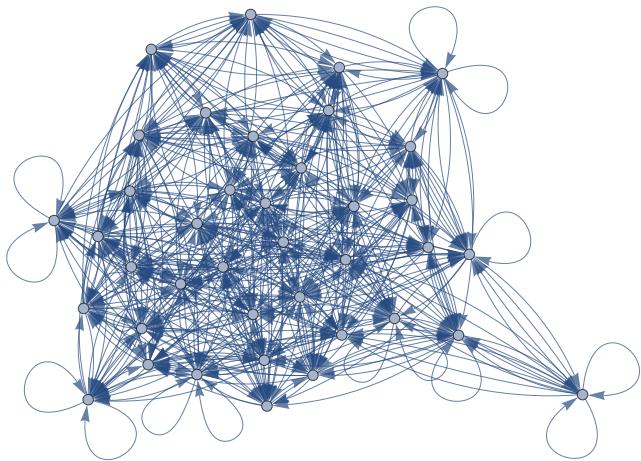
$l = 5$



$l = 7$



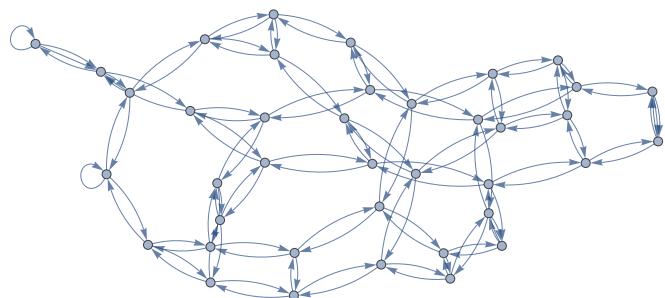
$l = 13$



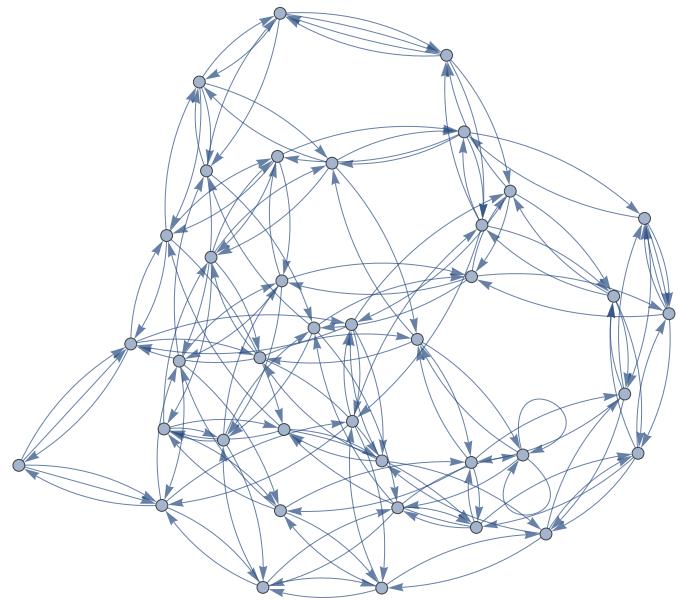
$p = 463$

$$\begin{aligned} & (-1728 + j) \ (-209 + j) \ (-184 + j) \ (-129 + j) \ (-51 + j) \ (27 + j) \ (197 + j) \ (105 - 194 j + j^2) \\ & (226 - 192 j + j^2) \ (57 - 138 j + j^2) \ (12 - 106 j + j^2) \ (-180 - 104 j + j^2) \ (-125 - 91 j + j^2) \\ & (144 - 87 j + j^2) \ (15 - 69 j + j^2) \ (65 - 68 j + j^2) \ (51 + 45 j + j^2) \ (-86 + 46 j + j^2) \\ & (-70 + 89 j + j^2) \ (99 + 156 j + j^2) \ (201 + 167 j + j^2) \ (86 + 205 j + j^2) \ (144 + 225 j + j^2) \end{aligned}$$

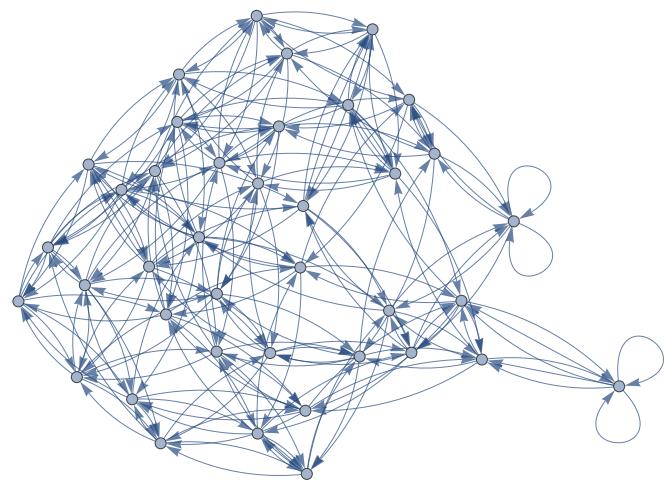
$l = 2$



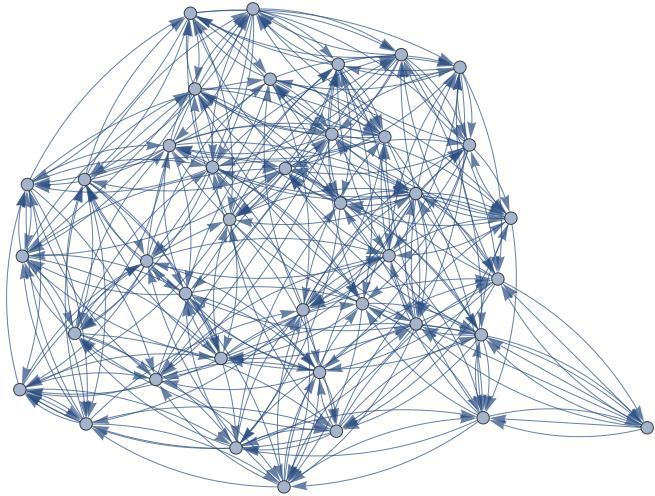
$l = 3$



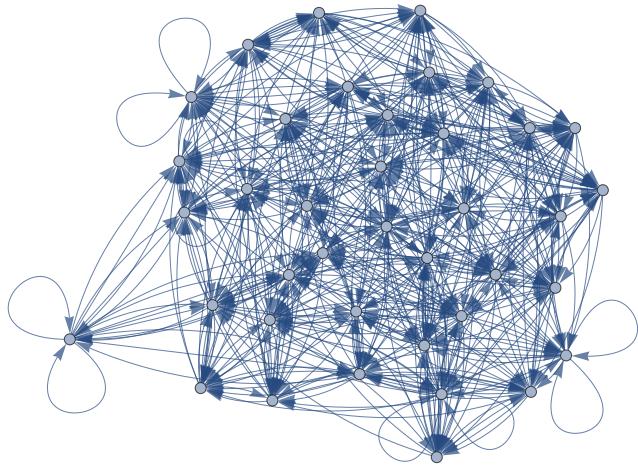
$l = 5$



$l = 7$



$l = 13$

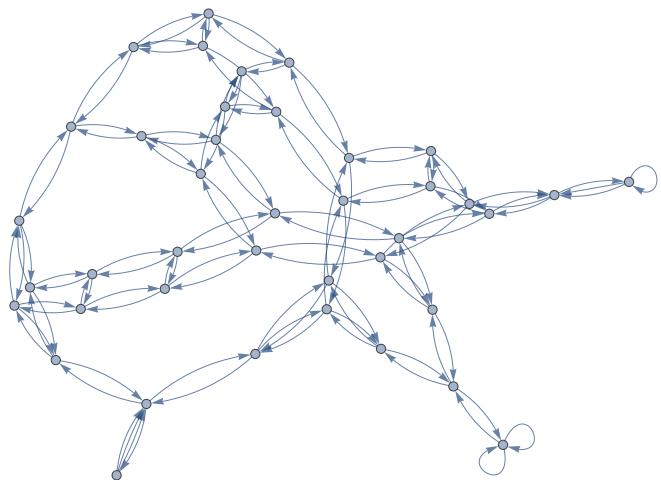



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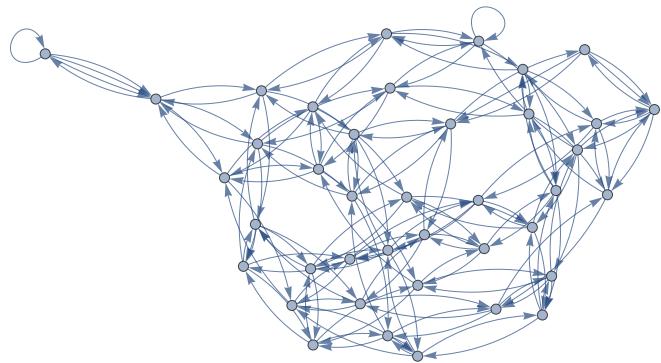
$p = 467$

$$\begin{aligned}
 & (-1728 + j) (-171 + j) (-170 + j) (-73 + j) (-35 + j) j (36 + j) (106 + j) (126 + j) (147 + j) \\
 & (172 + j) (176 + j) (195 + j) (202 + j) (-181 - 232 j + j^2) (154 - 223 j + j^2) (134 - 169 j + j^2) \\
 & (173 - 146 j + j^2) (61 - 135 j + j^2) (-205 - 124 j + j^2) (140 - 41 j + j^2) (-112 + 12 j + j^2) \\
 & (-219 + 116 j + j^2) (50 + 119 j + j^2) (151 + 161 j + j^2) (-66 + 200 j + j^2) (-58 + 208 j + j^2)
 \end{aligned}$$

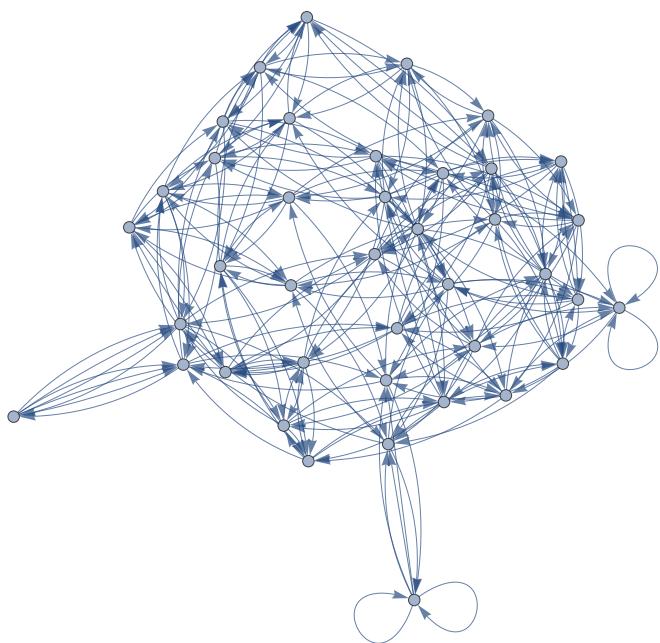
$l = 2$



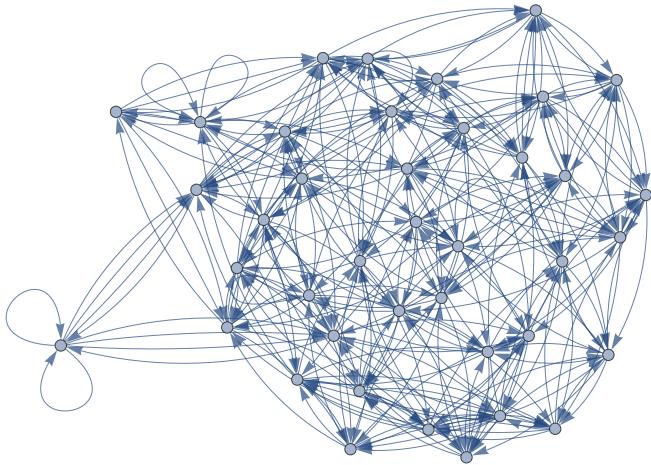
$l = 3$



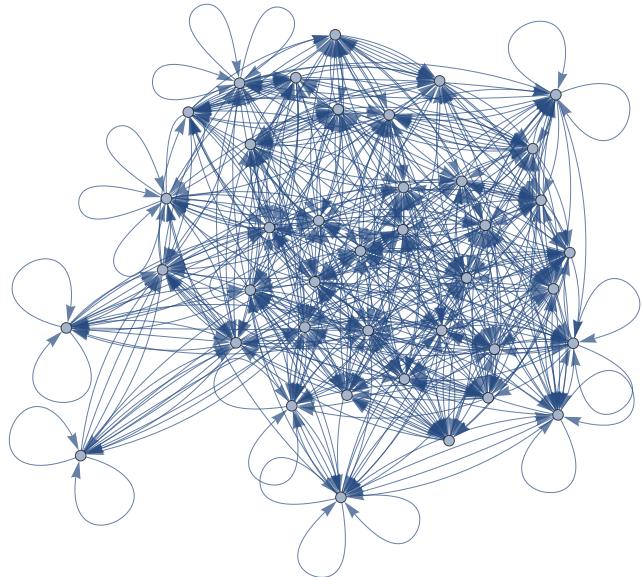
$l = 5$



$l = 7$



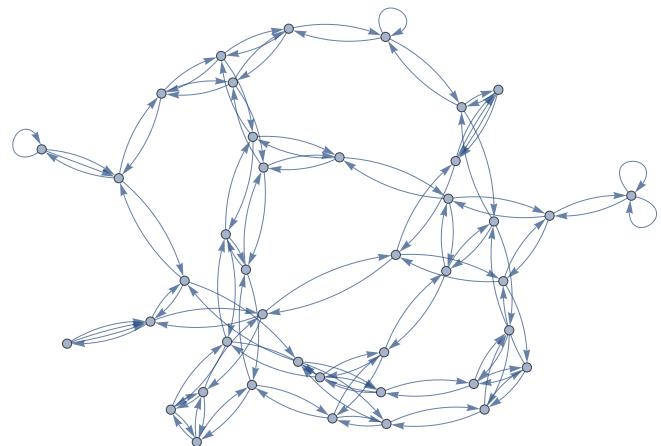
$l = 13$



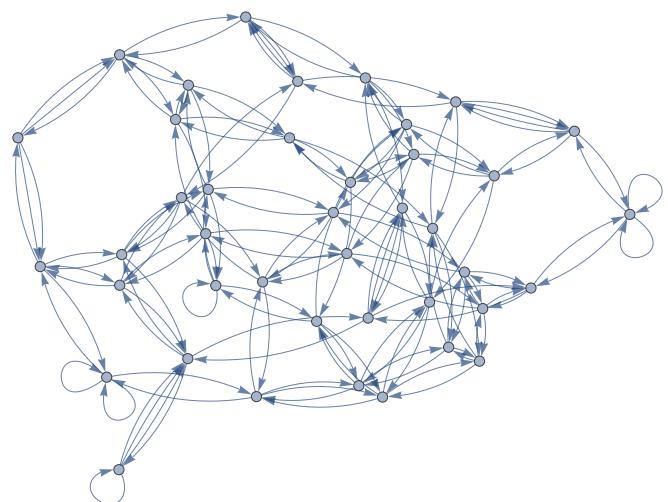
$p = 479$

$$\begin{aligned} & (-1728 + j) \ (-128 + j) \ (-117 + j) \ (-103 + j) \ (-98 + j) \ (-96 + j) \ (-70 + j) \ (-37 + j) \ (-24 + j) \ (-7 + j) \\ & j \ (22 + j) \ (32 + j) \ (41 + j) \ (81 + j) \ (88 + j) \ (103 + j) \ (114 + j) \ (119 + j) \ (127 + j) \ (143 + j) \\ & (168 + j) \ (196 + j) \ (207 + j) \ (213 + j) \ (-64 - 212 j + j^2) \ (-19 - 136 j + j^2) \ (-222 - 114 j + j^2) \\ & (-72 - 110 j + j^2) \ (-144 - 57 j + j^2) \ (-48 + 122 j + j^2) \ (-71 + 228 j + j^2) \ (115 + 229 j + j^2) \end{aligned}$$

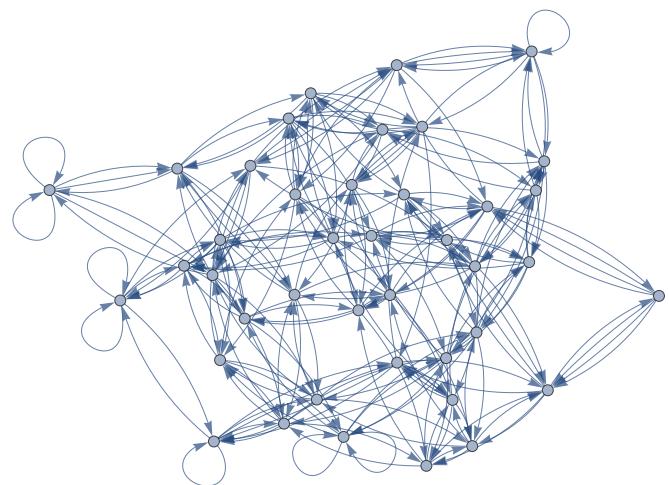
$l = 2$



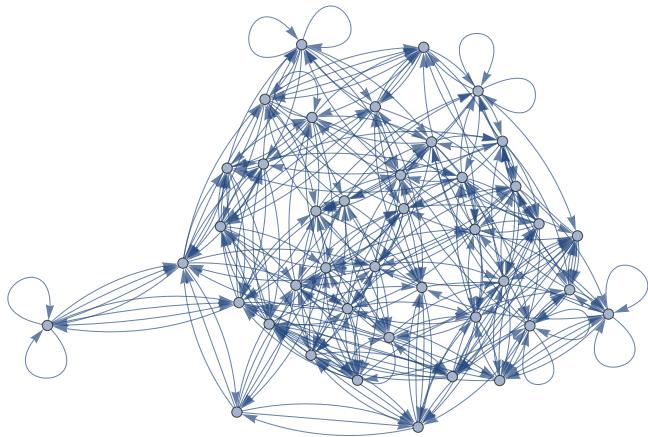
$l = 3$



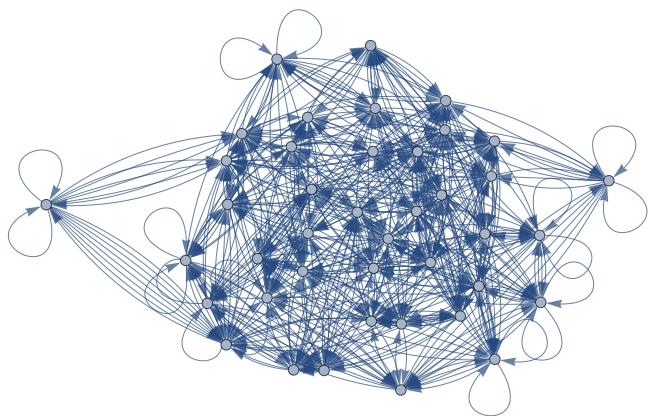
$l = 5$



$l = 7$



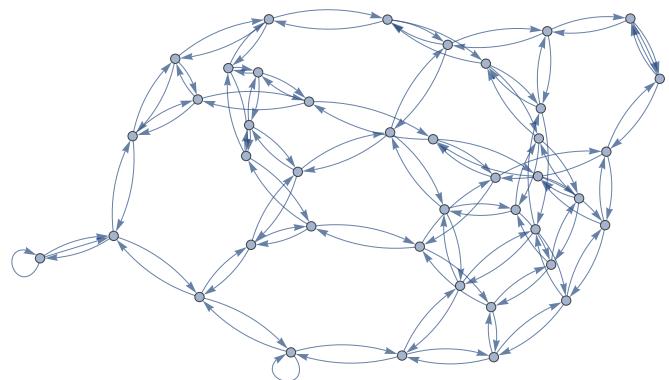
$l = 13$



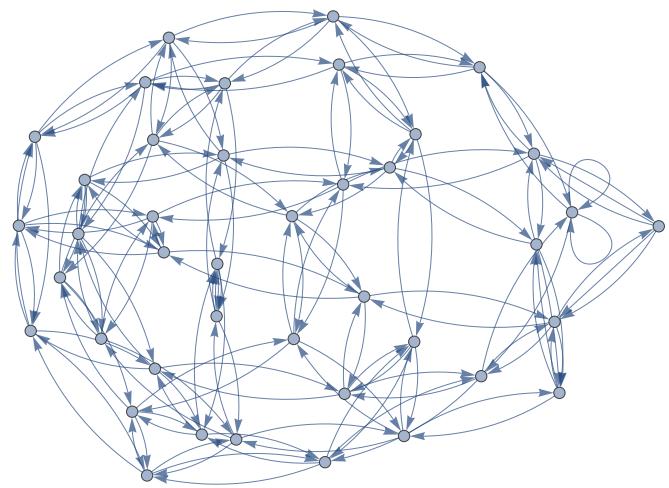
$p = 487$

$$\begin{aligned}
 & (-1728 + j) (-214 + j) (-208 + j) (-191 + j) (-166 + j) (-143 + j) (-43 + j) (215 - 238 j + j^2) \\
 & (-92 - 236 j + j^2) (200 - 192 j + j^2) (84 - 169 j + j^2) (8 - 147 j + j^2) (-216 - 33 j + j^2) (-40 - 16 j + j^2) \\
 & (208 + 26 j + j^2) (-1 + 48 j + j^2) (-25 + 121 j + j^2) (-214 + 134 j + j^2) (43 + 161 j + j^2) \\
 & (166 + 177 j + j^2) (-130 + 181 j + j^2) (214 + 184 j + j^2) (61 + 191 j + j^2) (-79 + 236 j + j^2)
 \end{aligned}$$

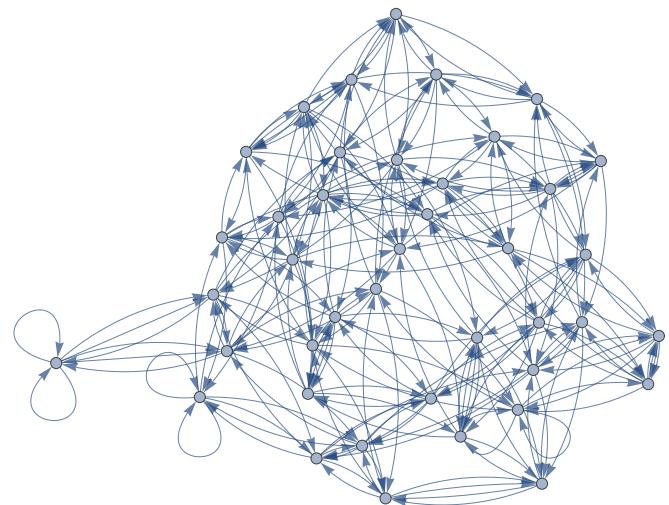
$l = 2$



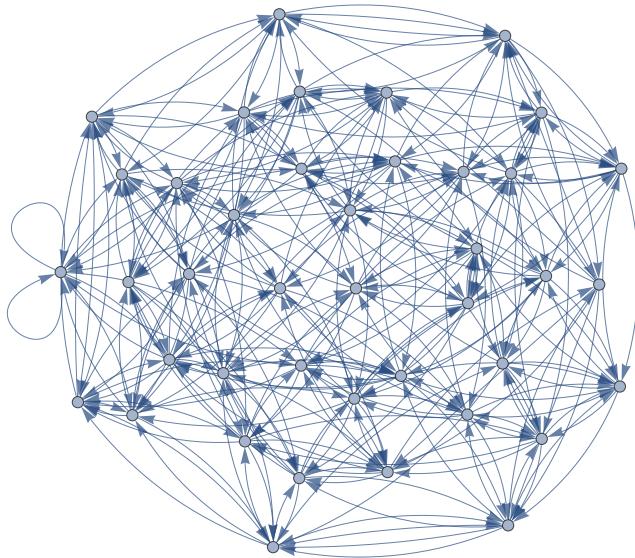
$l = 3$



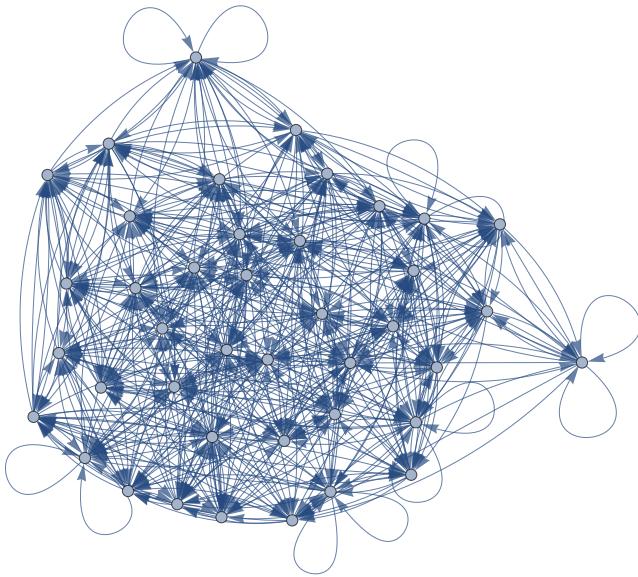
$l = 5$



$l = 7$



$l = 13$

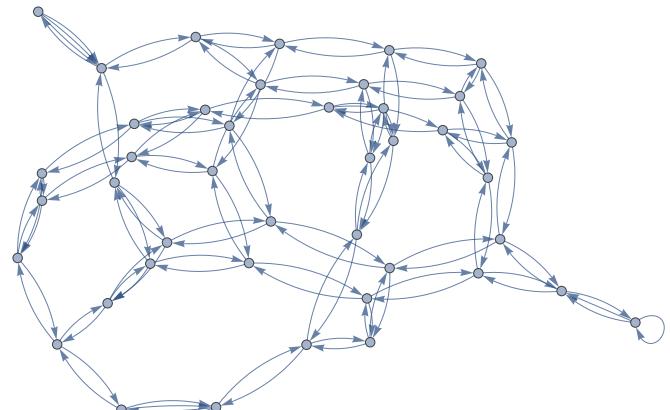



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$p = 491$

$$\begin{aligned}
 & (-1728 + j) (-243 + j) (-222 + j) (-162 + j) (-158 + j) (-129 + j) (-71 + j) (-4 + j) j (2 + j) (10 + j) \\
 & (47 + j) (62 + j) (117 + j) (154 + j) (225 + j) (230 + j) (234 + j) (-128 + j^2) (123 - 243 j + j^2) \\
 & (69 - 212 j + j^2) (-98 - 203 j + j^2) (-155 - 129 j + j^2) (70 - 91 j + j^2) (53 - 8 j + j^2) \\
 & (126 + 17 j + j^2) (-141 + 80 j + j^2) (-137 + 197 j + j^2) (174 + 197 j + j^2) (93 + 245 j + j^2)
 \end{aligned}$$

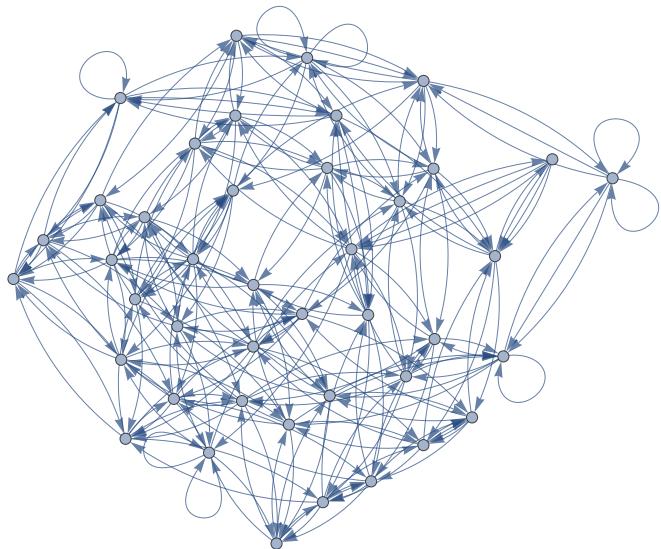
$l = 2$



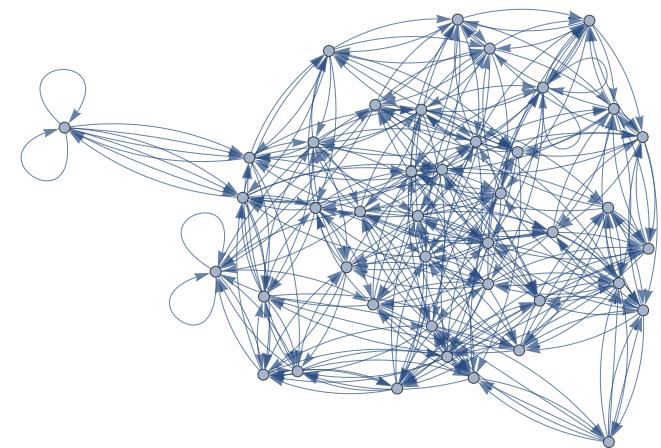
$l = 3$



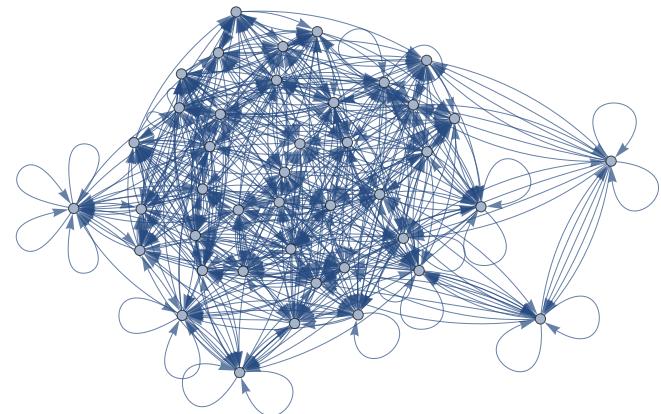
$l = 5$



$l = 7$



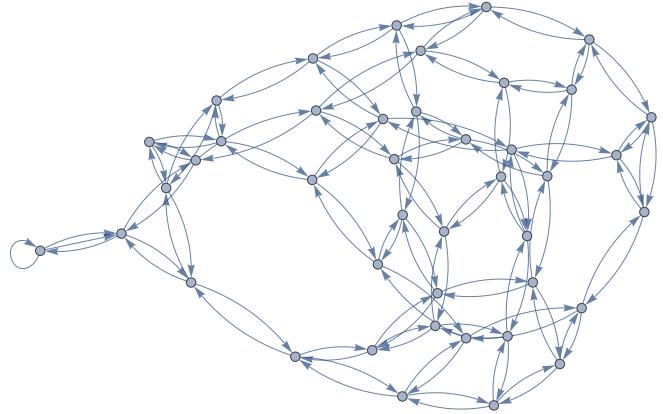
$l = 13$



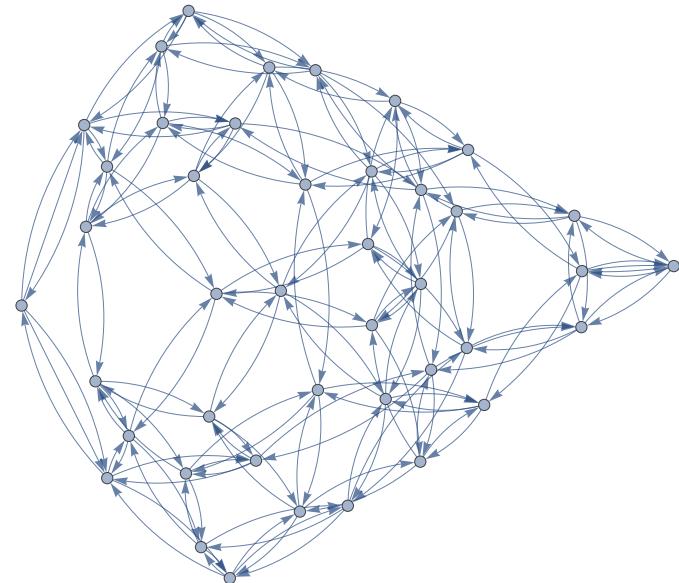
$p = 499$

$$\begin{aligned} & (-1728 + j) (-124 + j) (-111 + j) (-72 + j) (18 + j) (78 + j) (-134 - 249 j + j^2) (177 - 236 j + j^2) \\ & (62 - 222 j + j^2) (-134 - 215 j + j^2) (3 - 191 j + j^2) (-2 - 168 j + j^2) (-31 - 133 j + j^2) \\ & (104 - 110 j + j^2) (-187 - 101 j + j^2) (187 - 65 j + j^2) (149 - 20 j + j^2) (6 + 55 j + j^2) (27 + 63 j + j^2) \\ & (-165 + 72 j + j^2) (249 + 118 j + j^2) (-2 + 151 j + j^2) (-67 + 156 j + j^2) (201 + 234 j + j^2) \end{aligned}$$

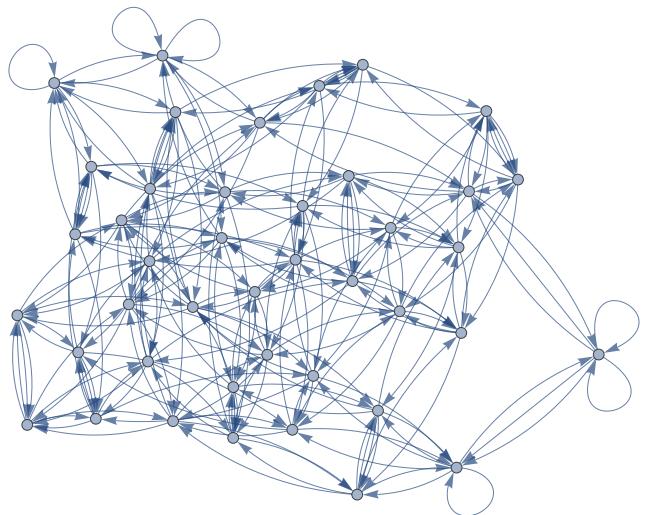
$l = 2$



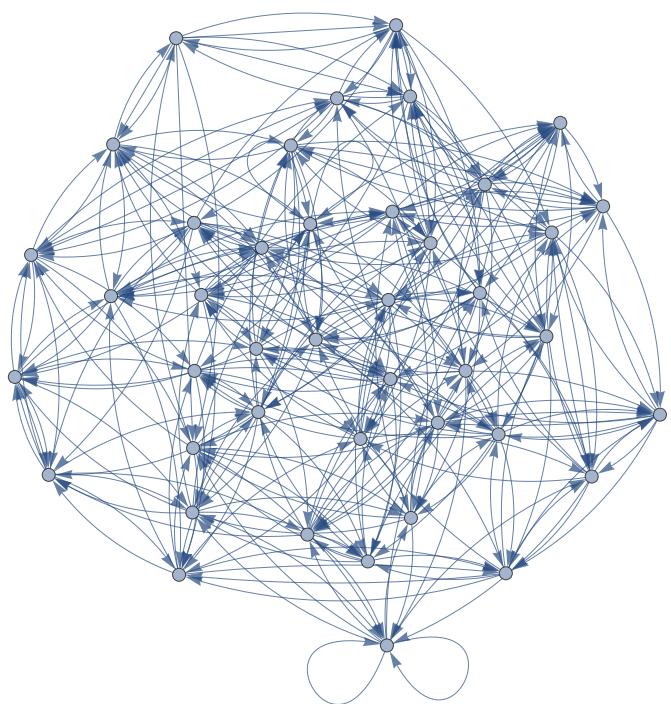
$l = 3$



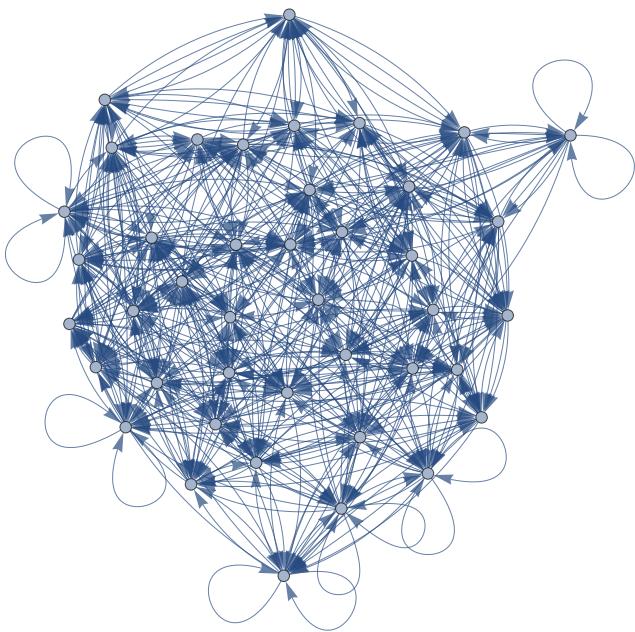
$l = 5$



$l = 7$



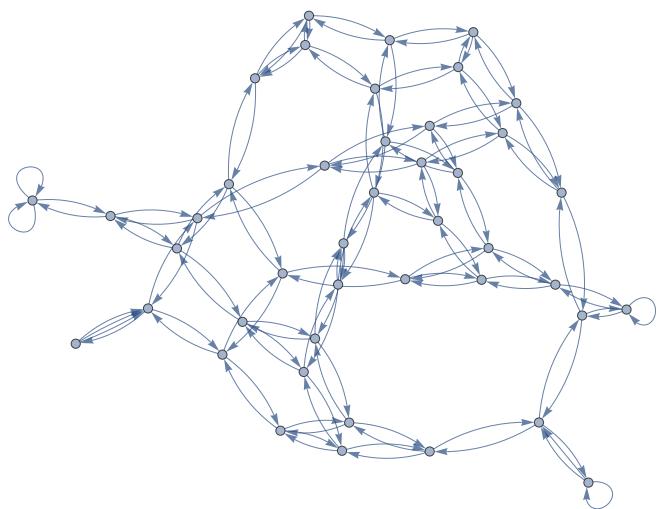
$l = 13$



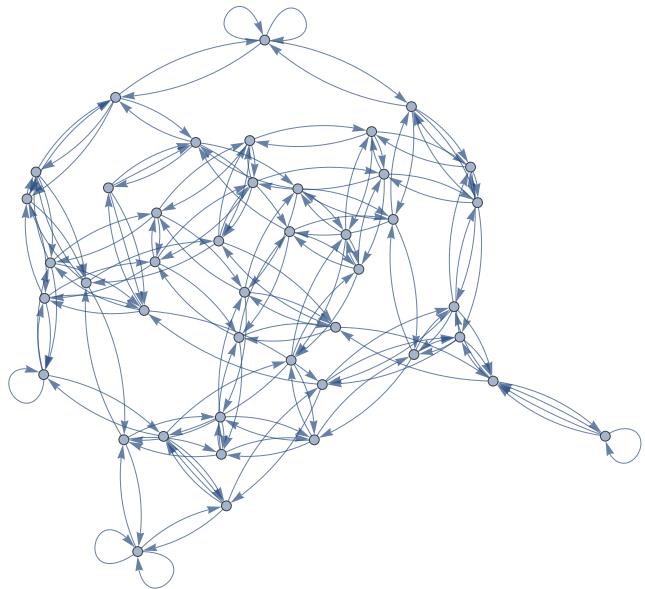
$p = 503$

$$\begin{aligned}
 & (-1728 + j) (-192 + j) (-179 + j) (-146 + j) (-113 + j) (-68 + j) (-19 + j) \\
 & (-8 + j) j (20 + j) (36 + j) (48 + j) (56 + j) (71 + j) (73 + j) (95 + j) (150 + j) \\
 & (213 + j) (220 + j) (245 + j) (246 + j) (143 - 196 j + j^2) (-168 - 190 j + j^2) \\
 & (-87 - 132 j + j^2) (197 - 119 j + j^2) (62 - 81 j + j^2) (-215 - 30 j + j^2) (-18 + 74 j + j^2) \\
 & (-73 + 204 j + j^2) (-170 + 205 j + j^2) (-54 + 220 j + j^2) (-175 + 221 j + j^2)
 \end{aligned}$$

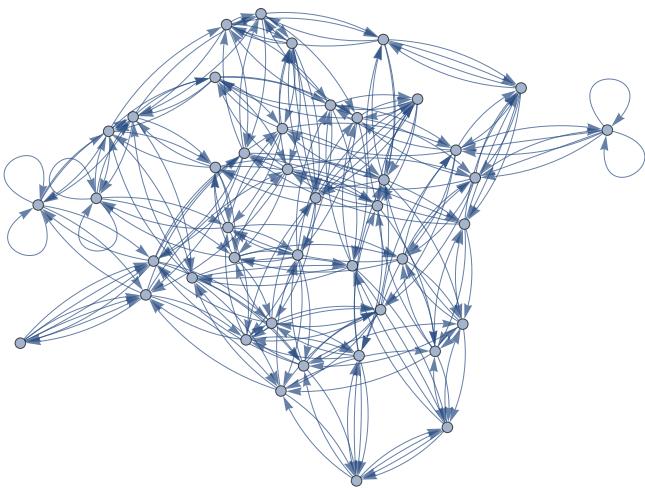
$l = 2$



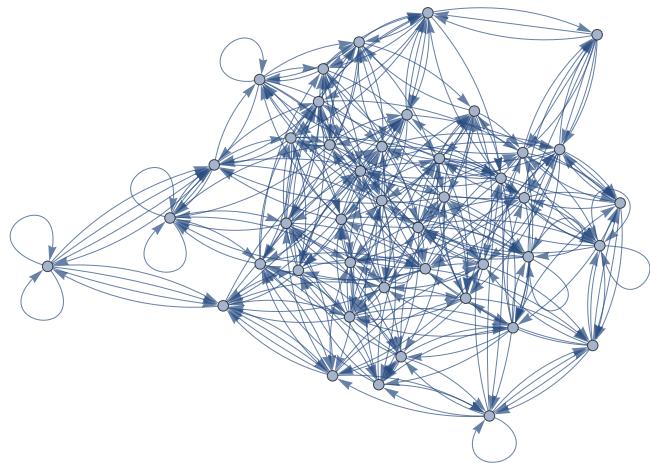
$l = 3$



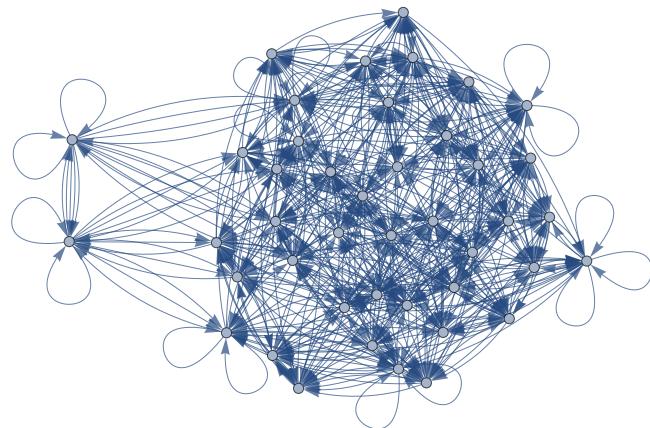
$l = 5$



$l = 7$



$l = 13$

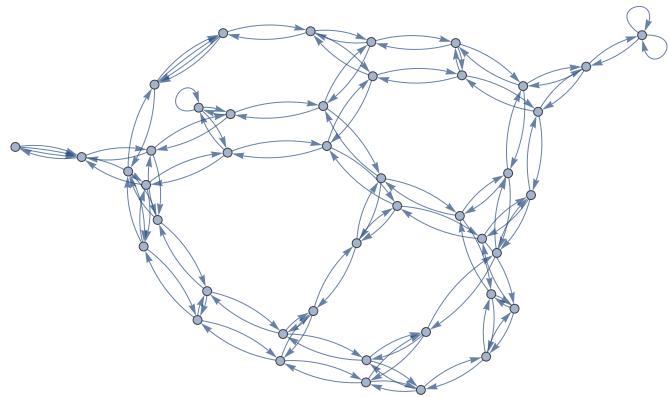



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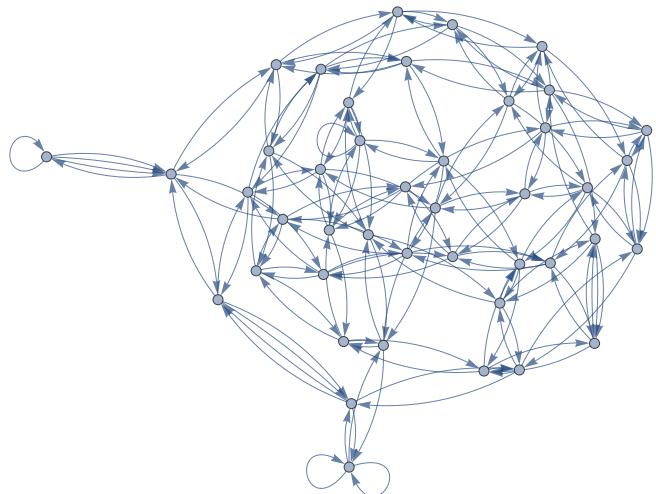
$p = 509$

$$\begin{aligned}
 & (-191 + j) (-188 + j) (-183 + j) (-151 + j) (-138 + j) (-46 + j) (-30 + j) (-23 + j) (-8 + j) j (1 + j) \\
 & (94 + j) (144 + j) (180 + j) (231 + j) (113 - 242 j + j^2) (-56 - 185 j + j^2) (-97 - 132 j + j^2) \\
 & (-77 - 106 j + j^2) (-132 - 98 j + j^2) (202 - 52 j + j^2) (185 - 7 j + j^2) (8 + 24 j + j^2) (-172 + 51 j + j^2) \\
 & (39 + 60 j + j^2) (75 + 60 j + j^2) (-84 + 94 j + j^2) (159 + 184 j + j^2) (134 + 208 j + j^2)
 \end{aligned}$$

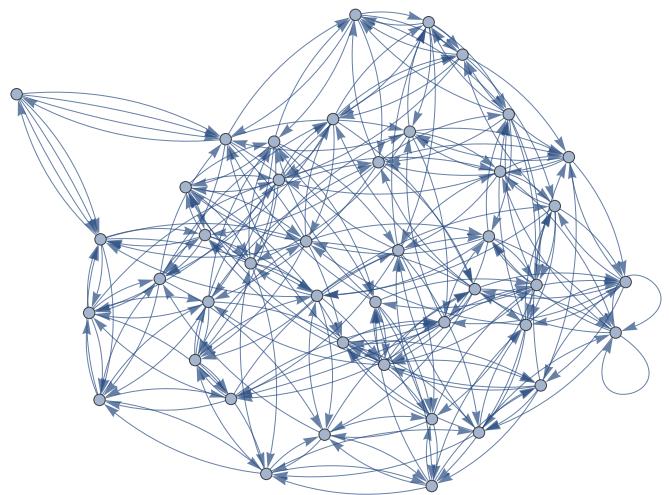
$l = 2$



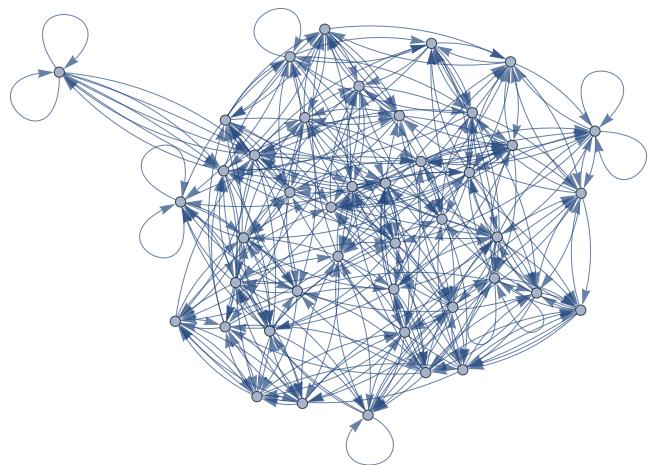
$l = 3$



$l = 5$



$l = 7$



$l = 13$

