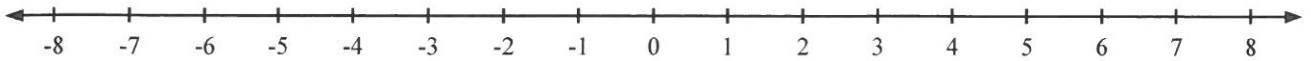


# Addition of Directed Numbers

© FREEFALL MATHEMATICS - LICENSED FOR NON-COMMERCIAL USE



Look at the pattern formed by your answers and the number line to assist you

1  $3 + 2$     2  $2 + 2$     3  $1 + 2$

$=$      $=$      $=$

4  $0 + 2$     5  $-1 + 2$     6  $-2 + 2$

$=$      $=$      $=$

7  $-3 + 2$     8  $-4 + 2$     9  $-5 + 2$

$=$      $=$      $=$

10  $-5 + 0$     11  $-5 + 1$     12  $-5 + 2$

$=$      $=$      $=$

13  $-5 + 3$     14  $-5 + 4$     15  $-5 + 5$

$=$      $=$      $=$

16  $-5 + 6$     17  $-5 + 7$     18  $-5 + 8$

$=$      $=$      $=$

Circle the correct answer

19  $-5 + 4 =$     -9    9    -1

20  $-4 + 3 =$     -1    7    -7

21  $-10 + 8 =$     2    -2    -18

22  $-15 + 3 =$     -12    12    -18

23  $-30 + 25 =$     -55    -5    5

24  $-14 + 14 =$     0    28    -28

25  $-5 + 10 =$     -15    15    5

26  $-7 + 3 =$     -4    4    10

27  $-20 + 60 =$     -40    -80    40

28  $-15 + 27 =$     -42    -12    12

29  $-11 + 4 =$     -7    -15    7

When you add a negative number it is like subtracting a positive number



30  $5 + 1$     31  $5 + 0$     32  $5 + -1$

$=$      $=$      $=$

33  $5 + -2$     34  $5 + -3$     35  $5 + -4$

$=$      $=$      $=$

36  $5 + -5$     37  $5 + -6$     38  $5 + -7$

$=$      $=$      $=$

39  $4 + -7$     40  $3 + -7$     41  $2 + -7$

$=$      $=$      $=$

42  $1 + -7$     43  $0 + -7$     44  $-1 + -7$

$=$      $=$      $=$

45  $-2 + -7$     46  $-3 + -7$

$=$      $=$

Circle the correct answer

47  $-6 + -6 =$     0    12    -12

48  $3 + -5 =$     -8    -2    8

49  $-5 + -7 =$     2    -12    -2

50  $8 + -5 =$     3    -3    13

51  $10 + -12 =$     -2    -22    2

52  $-4 + -10 =$     6    -6    -14

53  $-15 + -8 =$     -23    -7    7

54  $14 + -12 =$     -2    2    26

55  $20 + -50 =$     30    -70    -30

56  $-5 + -25 =$     20    -20    -30

57  $12 + -12 =$     0    -24    24



Now find the answer for these

Example

$4 + -10 + 6 =$     0

58  $10 + -5 + 3 =$

59  $8 + 10 + -6 =$

60  $-3 + 9 + -2 =$

61  $-8 + -3 + 6 =$

62  $11 + -5 + -8 =$

63  $8 + -12 + 4 =$

64  $-6 + 5 + -9 =$

65  $12 + 8 + -15 =$

66  $-15 + 3 + 10 =$

67  $-9 + -9 + 20 =$

68  $8 + -15 + -6 =$

69  $-10 + -10 + 50 =$

70  $-30 + 5 + 17 =$

71  $9 + -15 + 8 =$

72  $7 + 12 + -20 =$

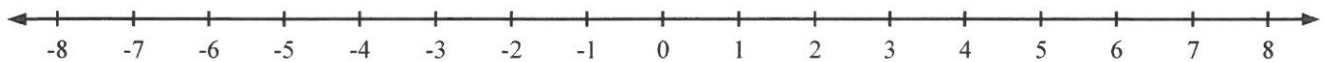
73  $13 + -20 + 10 =$

74  $18 + -20 + -2 =$

75  $-25 + 35 + -10 =$

# Subtraction of Directed Numbers

© FREEFALL MATHEMATICS - LICENSED FOR NON-COMMERCIAL USE



Look at the pattern formed by your answers and the number line to assist you

- |             |             |             |
|-------------|-------------|-------------|
| 1 $5 - +2$  | 2 $4 - 2$   | 3 $3 - +2$  |
| =           | =           | =           |
| 4 $2 - +2$  | 5 $1 - +2$  | 6 $0 - +2$  |
| =           | =           | =           |
| 7 $-1 - 2$  | 8 $-2 - 2$  | 9 $-3 - 2$  |
| =           | =           | =           |
| 10 $2 - 0$  | 11 $2 - 1$  | 12 $2 - +2$ |
| =           | =           | =           |
| 13 $2 - +3$ | 14 $2 - +4$ | 15 $2 - +5$ |
| =           | =           | =           |
| 16 $2 - 6$  | 17 $2 - 7$  | 18 $2 - 8$  |
| =           | =           | =           |

Circle the correct answer

- |                 |     |     |     |
|-----------------|-----|-----|-----|
| 19 $8 - +10 =$  | -18 | -2  | 2   |
| 20 $5 - +9 =$   | 4   | -13 | -4  |
| 21 $-2 - +6 =$  | -4  | -8  | 4   |
| 22 $-10 - 20 =$ | -30 | 10  | 30  |
| 23 $15 - 30 =$  | -45 | -15 | 15  |
| 24 $-9 - +12 =$ | -21 | 3   | 21  |
| 25 $12 - 12 =$  | -24 | 24  | 0   |
| 26 $13 - +15 =$ | 2   | -2  | -28 |
| 27 $-20 - 7 =$  | -27 | -13 | 13  |
| 28 $-14 - 14 =$ | -28 | 0   | 28  |
| 29 $-11 - 9 =$  | -2  | 2   | -20 |

When you subtract a negative number it is like adding a positive number



- |              |              |              |
|--------------|--------------|--------------|
| 30 $2 - -3$  | 31 $1 - -3$  | 32 $0 - -3$  |
| =            | =            | =            |
| 33 $-1 - -3$ | 34 $-2 - -3$ | 35 $-3 - -3$ |
| =            | =            | =            |
| 36 $-4 - -3$ | 37 $-5 - -3$ | 38 $-6 - -3$ |
| =            | =            | =            |
| 39 $-4 - -2$ | 40 $-4 - -3$ | 41 $-4 - -4$ |
| =            | =            | =            |
| 42 $-4 - -5$ | 43 $-4 - -6$ | 44 $-4 - -7$ |
| =            | =            | =            |
| 45 $-4 - -8$ |              | 46 $-4 - -9$ |
| =            |              | =            |

Circle the correct answer

- |                  |     |     |     |
|------------------|-----|-----|-----|
| 47 $5 - -2 =$    | -3  | 3   | 7   |
| 48 $-3 - -7 =$   | 4   | -4  | -10 |
| 49 $-10 - -10 =$ | -20 | 10  | 0   |
| 50 $-14 - -6 =$  | -20 | -8  | 8   |
| 51 $3 - -13 =$   | -10 | 16  | -16 |
| 52 $-24 - -12 =$ | -12 | -36 | 12  |
| 53 $5 - -17 =$   | -22 | -12 | 22  |
| 54 $-20 - -9 =$  | -29 | -11 | 11  |
| 55 $15 - -7 =$   | -8  | 22  | 8   |
| 56 $8 - -8 =$    | 16  | -8  | 0   |
| 57 $0 - -6 =$    | -6  | 0   | 6   |



Now find the answer for these

Example

$$5 - -10 - 6 = 9$$

- |                       |  |
|-----------------------|--|
| 58 $20 - +8 - 4 =$    |  |
| 59 $6 - -10 - 18 =$   |  |
| 60 $-40 - 14 - -6 =$  |  |
| 61 $-12 - +7 - -10 =$ |  |
| 62 $-8 - -13 - -15 =$ |  |
| 63 $8 - +12 - -4 =$   |  |
| 64 $-20 - -5 - -8 =$  |  |
| 65 $20 - 35 - -3 =$   |  |
| 66 $4 - -4 - -8 =$    |  |
| 67 $4 - -4 - +8 =$    |  |
| 68 $-10 - 40 - -90 =$ |  |
| 69 $-2 - -17 - +9 =$  |  |
| 70 $10 - 20 - 30 =$   |  |
| 71 $-9 - -10 - 4 =$   |  |
| 72 $8 - 19 - -11 =$   |  |
| 73 $16 - 20 - -7 =$   |  |
| 74 $-7 - -20 - -13 =$ |  |
| 75 $-6 - 11 - -17 =$  |  |