**4.1:** 1/2 x + 1/6 = 2 x

1/4x + 1/6 = 1

1/4x = 5/6

X = 20/6 = 3 1/3

**4.2:** 9.2 x – 12 = 1/5 x – 3

\*5

46x – 60 = x – 15

+15

46x – 45 = x

X = 1

**4.3:** (x + 1)/2 = (x + 4) / 3

\*2

X+1 = (X+4) / 1.5

-1

X = ((X+4) /1.5) – 1

X+4 / 1.5 = x/1.5 = 2/3X + 2 2/3

X = 2/3X + 2 2/3

X = 8/3 \* 1.5 = 12/3 = 4

X = 4

4.4: 3(x – 3) = (2x – 6) / 6  
4.5: 6x^2 + 4x = 16  
4.6:  
x + 2y – z = 4  
2x + y + z = -2  
x + 2y + z = 2