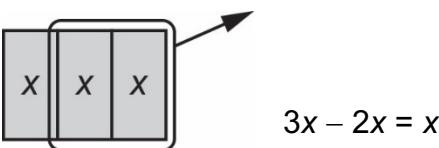
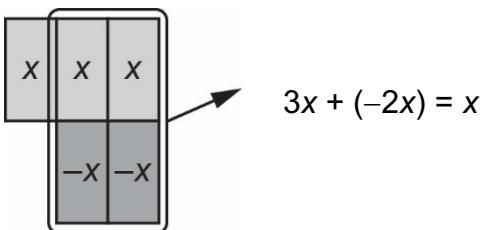


Patterns and Relations
Unit 1 Line Master 3c
Subtracting Polynomials Answers


b) 

$$3x - 2x = x$$

c) 

$$3x + (-2x) = x$$

d) Subtracting a polynomial gives the same answer as adding the opposite polynomial.

$$3x - 2x = 3x + (-2x)$$

2. a) $x^2 + (-6x) + 3$
 b) $-4x^2 + (-9)$

3. a) $2x^2 - 3x - 7$
 b) $-5x^2 + 3x - 3$

 4. a) There was no $-x$ -tile to remove. By adding a zero pair, the $-x$ -tile can now be removed, leaving 6 x -tiles.

b) $6x$
 c)
$$\begin{aligned} 5x - (-x) &= 5x + (+x) \\ &= 6x \end{aligned}$$

 5. a) Sara wanted to add the opposite. The opposite of $3x$ is $-3x$ and the opposite of -6 is $+6$.

b) Yes, Sara's answer is correct.

c)
$$\begin{aligned} (-4m^2 - 5m - 6) - (-7m^2 + 3m - 1) &= (-4m^2 - 5m - 6) + (7m^2 - 3m + 1) \\ &= 3m^2 - 8m - 5 \end{aligned}$$