

HW: Worksheet

**Warm up:**

Simplify.

$$1) 5(3x - 2) = 15x - 10$$

$$2) 4a(2b + 7) = 8ab + 28a$$

3) 5 more than half of a number is 12. What is the number?

$$\begin{array}{r} \frac{1}{2}x + 5 = 12 \\ -5 \quad -5 \\ \hline 2\left(\frac{1}{2}x\right) = (7) \cdot 2 \\ x = 14 \end{array}$$

## HW Solutions

④

$$\begin{array}{r} 248 + 30h = 572 \\ -248 \qquad \qquad -248 \\ \hline \end{array}$$

$$\begin{array}{r} 30h = 324 \\ \hline 30 \qquad \qquad 30 \\ \hline \end{array}$$

$$h = 10.8$$

$$\textcircled{10.8h}$$

$$\textcircled{c} \quad 4(3.50) + 2t = 19.50$$

$$\begin{array}{r} 14 + 2t = 19.50 \\ -14 \qquad \qquad -14 \\ \hline \end{array}$$

$$\begin{array}{r} 2t = 5.50 \\ \hline \end{array}$$

$$\begin{array}{r} t = 2.75 \\ \hline \end{array}$$

$$\textcircled{\$2.75}$$

(5)

$$4w + 7 = 79$$

$$\begin{array}{r} -7 \quad -7 \\ \hline \end{array}$$

$$\begin{array}{r} 4w = 72 \\ \hline \frac{4}{4} \quad \frac{4}{4} \\ \hline \end{array}$$

$$w = 18$$

18 cards

$$\textcircled{3} \quad \begin{array}{r} 10.50 + 0.25q = 22.75 \\ - 10.50 \qquad \qquad \qquad - 10.50 \\ \hline \end{array}$$

$$\begin{array}{r} 0.25q = 12.25 \\ \hline 0.25 \quad 0.25 \\ \hline q = 49 \end{array}$$

49 quarters


②

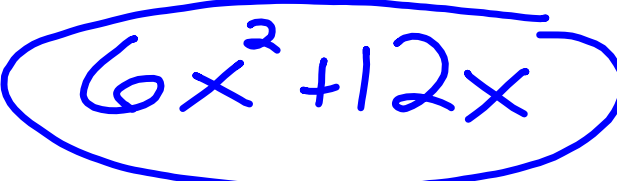
$$\begin{array}{r} 2s + 28 = 152 \\ - 28 \quad - 28 \\ \hline \end{array}$$

$$\frac{2s = 124}{2} \quad \frac{124}{2}$$

$$\frac{s = 62}{}$$

# 62

$$3x(2x + 4)$$


$$6x^2 + 12x$$


$$5ab(7c - 9)$$

$$35abc - 45ab$$



What is the GCF of 15 and 20?

5

$$\begin{array}{r} 3 \quad 4 \\ 5 \overline{) 15 \quad 20} \end{array}$$

24 and 40?

8

30 and 54?

6

$$\begin{array}{r} 5 \quad 9 \\ 6 \overline{) 30 \quad 54} \end{array}$$

## Factoring

$$2(x + 5) = 2x + 10$$

Factor.

$$8x - 20 = 4(2x - 5)$$

$$6ab + 16b = 2b(3a + 8)$$

$$18ab^2 - 4ab + 24a = 2a(9b^2 - 2b + 12)$$

Simplify.

1)  $8(4x - 7)$

$$32x - 56$$

2)  $3(2x + 3)$

$$6x + 9$$

3)  $6w(5yz - 9z)$

$$30wyz - 54wz$$

4)  $5x(3y^2 + y - 8)$

$$15xy^2 + 5xy - 40x$$

Factor.

5)  $12n - 28$

$$4(3n - 7)$$

7)  $40x - 64xy$

$$8x(5 - 8y)$$

6)  $18ab + 30b$

$$6b(3a + 5)$$

8)  $9cd^2 - 18cd + 45c$

$$9c(d^2 - 2d + 5)$$

