

Review Exercise Set 8

Exercise 1: Solve for y.

$$6x - 2y = 14$$

Exercise 2: Solve for x.

$$5x - 20 = 15y$$

Exercise 3: Solve for V.

$$PV = nRT$$

Exercise 4: Solve for x.

$$H = \frac{1}{3}k(x - y)$$

Exercise 5: Solve for w.

$$P = 2l + 2w$$

Review Exercise Set 8 Answer Key

Exercise 1: Solve for y.

$$\begin{aligned}6x - 2y &= 14 \\6x - 6x - 2y &= 14 - 6x \\-2y &= 14 - 6x \\-2y \div -2 &= (14 - 6x) \div -2 \\y &= (14 \div -2) + (-6x \div -2) \\y &= -7 + 3x \\y &= \mathbf{3x - 7}\end{aligned}$$

Exercise 2: Solve for x.

$$\begin{aligned}5x - 20 &= 15y \\5x - 20 + 20 &= 15y + 20 \\5x &= 15y + 20 \\5x \div 5 &= (15y + 20) \div 5 \\x &= (15y \div 5) + (20 \div 5) \\x &= \mathbf{3y + 4}\end{aligned}$$

Exercise 3: Solve for V.

$$\begin{aligned}PV &= nRT \\(PV) \div P &= (nRT) \div P \\V &= \frac{nRT}{P}\end{aligned}$$

Exercise 4: Solve for x.

$$\begin{aligned}H &= \frac{1}{3}k(x - y) \\3 \times H &= 3 \times \frac{1}{3}k(x - y) \\3H &= k(x - y) \\3H &= kx - ky \\3H + ky &= kx - ky + ky \\3H + ky &= kx \\(3H + ky) \div k &= kx \div k \\ \frac{3H + ky}{k} &= x\end{aligned}$$

Exercise 5: Solve for w .

$$P = 2l + 2w$$

$$P - 2l = 2l - 2l + 2w$$

$$P - 2l = 2w$$

$$(P - 2l) \div 2 = 2w \div 2$$

$$\frac{P - 2l}{2} = w$$