

Review Exercise Set 27

Exercise 1: Write as a rate in simplest form.

825 miles in 11 hours

Exercise 2: Write as a rate in simplest form.

48 tomatoes on 9 plants

Exercise 3: Write as a unit rate.

9 yards in 6 minutes

Exercise 4: Write as a unit rate.

3660 words on 15 pages

Exercise 5: An automobile was driven 318 miles on 12 gallons of gas. Find the rate in simplest form and the unit rate (number of miles driven per gallon of gas).

Review Exercise Set 27 Answer Key

Exercise 1: Write as a rate in simplest form.

825 miles in 11 hours

$$\begin{aligned}\frac{825 \text{ miles}}{11 \text{ hours}} &= \frac{75 \times \cancel{11}^1 \text{ miles}}{\cancel{11}^1 \text{ hours}} \\ &= \frac{75 \text{ miles}}{1 \text{ hour}}\end{aligned}$$

Exercise 2: Write as a rate in simplest form.

48 tomatoes on 9 plants

$$\begin{aligned}\frac{48 \text{ tomatoes}}{9 \text{ plants}} &= \frac{16 \times \cancel{3}^1 \text{ tomatoes}}{3 \times \cancel{3}^1 \text{ plants}} \\ &= \frac{16 \text{ tomatoes}}{3 \text{ plants}}\end{aligned}$$

Exercise 3: Write as a unit rate.

9 yards in 6 minutes

$$\begin{aligned}\frac{9 \text{ yards}}{6 \text{ minutes}} &= \frac{3 \times \cancel{3}^1 \text{ yards}}{2 \times \cancel{3}^1 \text{ minutes}} \\ &= \frac{3 \text{ yards}}{2 \text{ minutes}} \\ &= 1.5 \text{ yards per minute}\end{aligned}$$

Exercise 4: Write as a unit rate.

3660 words on 15 pages

$$\begin{aligned}\frac{3660 \text{ words}}{15 \text{ pages}} &= \frac{\cancel{3}^1 \times \cancel{3}^1 \times 244 \text{ words}}{\cancel{3}^1 \times \cancel{3}^1 \text{ pages}} \\ &= \frac{244 \text{ words}}{1 \text{ page}} \\ &= 244 \text{ words per page}\end{aligned}$$

Exercise 5: An automobile was driven 318 miles on 12 gallons of gas. Find the rate in simplest form and the unit rate (number of miles driven per gallon of gas).

$$\begin{aligned}\frac{318 \text{ miles}}{12 \text{ gallons}} &= \frac{\cancel{3}^1 \times \cancel{2}^1 \times 53 \text{ miles}}{\cancel{3}^1 \times \cancel{2}^1 \times 2 \text{ gallons}} \\ &= \frac{53 \text{ miles}}{2 \text{ gallons}} \\ &= 26.5 \text{ miles per gallon}\end{aligned}$$