

6

$$d = vt$$

Name

SOLUTIONS

- 1) A car is traveling at 50 miles per hour (mph) for 2 hours. The car travels 100 miles. Identify the information.

$$v = 50 \text{ mph}$$

$$t = 2 \text{ hours}$$

$$d = 100 \text{ miles}$$

- 2) A giraffe is galloping at 15 meters per second (m/s). It does this for 40 seconds (s). How far has the giraffe gone? Answer: 600 meters (m)

$$v = 15 \text{ m/s}$$

$$t = 40 \text{ s}$$

$$d = ?$$

$$d = vt$$

$$d = (15)(40)$$

$$d = \boxed{600 \text{ m}}$$

- 3) A car travels 400 miles in 10 hours. What was the average speed of the car? Answer: 40 mph

$$d = 400 \text{ miles}$$

$$t = 10 \text{ hours}$$

$$v = ?$$

$$d = vt$$

$$400 = v(10)$$

$$\frac{400}{10} = v = \boxed{40 \text{ mph}}$$

- 4) A person walks at a speed of 3 m/s. They travel 720 m. How many seconds did this take? How many minutes did it take? Answer: 240 seconds, 4 minutes

$$v = 3 \text{ m/s}$$

$$d = 720 \text{ m}$$

$$t = ?$$

$$d = vt$$

$$720 = 3t$$

$$\frac{720}{3} = 240 \text{ seconds} \times \frac{1 \text{ minute}}{60 \text{ seconds}} = \frac{240}{60} = \boxed{4 \text{ minutes}}$$

5) A car is traveling at 80 mph. How far does it go in 30 minutes? Answer: 40 miles

$$V = 80 \text{ mph}$$

$$t = 30 \text{ MINUTES}$$

$$d = ?$$

$$d = vt$$

$$d = (80)(.5)$$

$$d = \boxed{40 \text{ MILES}}$$

$$t = 30 \text{ MINUTES} \times \frac{1 \text{ HOUR}}{60 \text{ MINUTES}}$$

$$t = \frac{30}{60} = \underline{\underline{.5 \text{ hours}}}$$

6) A car travels at 30 m/s for 15 minutes. How far has it gone? Answer: 27,000 m

$$V = 30 \frac{\text{M}}{\text{S}}$$

$$t = 15 \text{ MINUTES}$$

$$d = ?$$

$$d = vt$$

$$d = (30)(900)$$

$$d = \boxed{27,000 \text{ m}}$$

$$t = 15 \text{ MINUTES} \times \frac{60 \text{ sec}}{\text{MIN}}$$

$$t = (15)(60) = \underline{\underline{900 \text{ seconds}}}$$

7) Give the symbol form for the following.

<u>Information</u>	<u>Units</u>
Distance <u>d</u>	Meters <u>M</u>
Time <u>t</u>	Seconds <u>S</u>
Speed <u>S</u>	Miles per hour <u>mph</u>
	Meters per second <u>m/s</u>