

Ch 11.1 speed and velocity worksheet

Warning! The first answer is not reasonable -

1. Zane Long has a speedboat. He drives it 12530m down the lake. It only takes him 62s. What is his speed?

$$d = 12530 \text{ m}$$

$$t = 62 \text{ s}$$

$$v = \frac{d}{t} \text{ m/s}$$

$$v = \frac{12530 \text{ m}}{62 \text{ s}} = 202 = 200 = (2.0 \times 10^2 \text{ m/s})$$

2. What is his velocity? $2.0 \times 10^2 \text{ m/s}$ down the lake
3. Vallie Evans is a high dive champion at the state level. She leaps out and does double gainer with a 2.5 twist and it only takes her 1.2368s to hit the water. Her average speed was 6.1m/s. how high was the diving platform?

$$t = 1.2368 \text{ s}$$

$$v = 6.1 \text{ m/s}$$

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

$$d = v \cdot t = 6.1 \text{ m/s} \cdot 1.2368 \text{ s} = 7.54448 \text{ m}$$

$$d = 7.5 \text{ m}$$

4. Waylon Price wants to go to Hawaii but he does not want to spend the money to fly. He decided to drive but the map showed him that he couldn't. He has now decided he will swim instead. He is a world class swimmer able to maintain a constant velocity of 2.1m/s toward Hawaii. It is 4106000m to the islands. How long does it take him in seconds?

$$v = 2.1 \text{ m/s}$$

$$d = 4106000 \text{ m}$$

$$t = \frac{d}{v} = \frac{4106000 \text{ m}}{2.1 \text{ m/s}} = 1955238.095 \text{ s}$$

5. How many Days?

$$\frac{1955238.095 \text{ s}}{60 \text{ s}} = 32587.30158 \text{ min}$$

$$\frac{32587.30158 \text{ min}}{60 \text{ min}} = 543.121693 \text{ hr}$$

$$\frac{543.121693 \text{ hr}}{24 \text{ hr}} = 22.63007055 \text{ day}$$

6. How many Years?

Above ↑ plus 1 yr

$$\frac{22.63007055 \text{ day}}{365 \text{ day}} = 0.062 \text{ yrs}$$

7. How many miles is it to the island from Los Angeles given that 1in = 2.5cm

$$\frac{4106000 \text{ m}}{1 \text{ m}} \cdot \frac{100 \text{ cm}}{1 \text{ m}} \cdot \frac{1 \text{ in}}{2.54 \text{ cm}} \cdot \frac{1 \text{ ft}}{12 \text{ in}} \cdot \frac{1 \text{ mile}}{5280 \text{ ft}} = 2551.35011 \text{ mile}$$

$$2551 \text{ mil}$$



Mr. D. walks from the CTE Hall X, To the Art Hall A, and then to the end of the hall outside into the courtyard to point Y. Assume Mr. D. is round but his path is a perfect rectangle.

- 8.

What distance did Mr. D. walk?

632 m

What is Mr. D's Displacement?

52m south

