

Wed 10-31-18

Wed assign problems Section 1.3

- ② The travel time for a plane traveling at a rate of r kilometers per hour for 730 kilometers.

$$\boxed{\frac{730}{r}} \text{ hr.}$$

$$d = r \cdot t$$

$$t = \frac{d}{r}$$

$$\rightarrow t = \boxed{\frac{730}{r}}$$

- ③ The area A of a triangle with base 18 inches and height h inches.

formula
for Area
of triangle.

$$A = \frac{b \cdot h}{2} = \frac{(18)(h)}{2} = 9(h)$$

$$\boxed{9h}$$

- ④ The sum of three consecutive natural numbers is 894. Find the numbers.

$$\frac{894}{3} = 298$$

• The average gives you the middle number.

$$\underline{297}, \underline{298}, \underline{299}$$

- ⑤ A family has an annual loan payments equaling 29% of their annual income. During the year, their loan payment total \$15125.50. what is their annual income? (Round your answer to the nearest cent)

• write a declarative statement

29% of A.I. is 15125.50.

$$\frac{15}{\text{of}} = \frac{\%}{100} \rightarrow \frac{15125.5}{x} = \frac{29}{100} \rightarrow$$

$$15125.5(100) = 29x$$

$$1512550 = 29x$$

$$\frac{1512550}{29} = x$$

$$\boxed{x = 52156.90}$$

⑥ A picture frame has a total perimeter P of 4 meters.
 The height of the frame is $\frac{2}{3}$ times the width.

(a) Draw a picture



(b) write h in terms of w

$$h = \frac{2}{3}w$$

write the equation of Perimeter in terms of w .

$$P = \frac{2}{3}w + \frac{2}{3}w + w + w$$

$$P = \frac{4}{3}w + 2w$$

$$P = \frac{10}{3}w$$

(c) Find the dimensions of the picture frame.

$$h = \frac{4}{5} \text{ m}$$

$$w = \frac{4}{5} \text{ m}$$

$$P = 4$$

$$P = \frac{10}{3}w$$

$$4 = \frac{10}{3}w$$

$$\frac{4}{1} \cdot \frac{3}{10} = w$$

$$\frac{12}{10} = w$$

$$\frac{6}{5} = w$$

$$h = \frac{2}{3}w$$

$$h = \frac{2}{3} \cdot \frac{6}{5}$$

$$h = \frac{12}{15}$$

$$h = \frac{4}{5}$$

⑦ To get an A in a course you must have an average of at least 90 on four test of 100 points each. The scores on your first three test were 88, 92, and 85. What is the minimum you must score on the fourth test to get an A for the course.

$$\frac{88 + 92 + 85 + x}{4} = 90$$

~~$$\frac{265 + x}{4} = \frac{90}{1}$$~~

$$(265 + x)1 = 90(4)$$

$$265 + x = 360$$

$$x = 360 - 265$$

$$\boxed{x = 95}$$