

M8 - 2.1 - Equal Fractions HW

Solve for the x .

$$\frac{1}{2} = \frac{?}{6} \quad (3)$$

$\times 3$
 $\div 3$

$$\frac{3}{4} = \frac{x}{8}$$

$$\frac{3}{5} = \frac{x}{20}$$

$$\frac{2}{3} = \frac{x}{21}$$

$$\frac{1}{3} = \frac{x}{18}$$

$$\frac{x}{2} = \frac{3}{6}$$

$$\frac{x}{4} = \frac{5}{20}$$

$$\frac{x}{3} = \frac{4}{6}$$

$$\frac{x}{6} = \frac{18}{36}$$

$$\frac{x}{7} = \frac{14}{49}$$

$$\frac{3}{x} = \frac{6}{26}$$

$$\frac{4}{x} = \frac{16}{20}$$

$$\frac{7}{x} = \frac{14}{24}$$

$$\frac{3}{x} = \frac{21}{35}$$

$$\frac{5}{x} = \frac{25}{30}$$

$$\frac{3}{4} = \frac{9}{x}$$

$$\frac{3}{7} = \frac{12}{x}$$

$$\frac{7}{9} = \frac{14}{x}$$

$$\frac{4}{5} = \frac{32}{x}$$

$$\frac{6}{7} = \frac{54}{x}$$

Solve for the x .

$$\frac{1}{2} = \frac{?}{5} \quad (2.5)$$

$\times 2.5$
 $\div 2.5$

$$5 \div 2 = 2.5$$

$$\frac{3}{4} = \frac{x}{6}$$

$$\frac{3}{5} = \frac{x}{12}$$

$$\frac{2}{3} = \frac{x}{10}$$

$$\frac{1}{3} = \frac{x}{25}$$

$$\frac{x}{1} = \frac{3}{6}$$

$$\frac{x}{4} = \frac{5}{18}$$

$$\frac{x}{3} = \frac{4}{8}$$

$$\frac{x}{6} = \frac{18}{20}$$

$$\frac{x}{7} = \frac{14}{50}$$

$$\frac{3}{x} = \frac{20}{26}$$

$$\frac{4}{x} = \frac{15}{20}$$

$$\frac{7}{x} = \frac{4}{24}$$

$$\frac{3}{x} = \frac{2}{35}$$

$$\frac{5}{x} = \frac{32}{30}$$

$$\frac{2}{4} = \frac{9}{x}$$

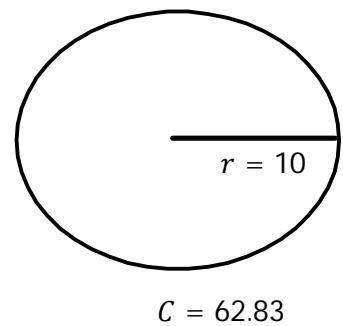
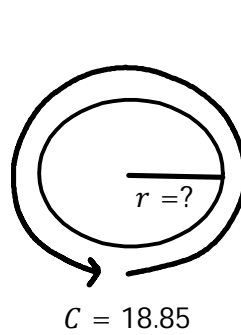
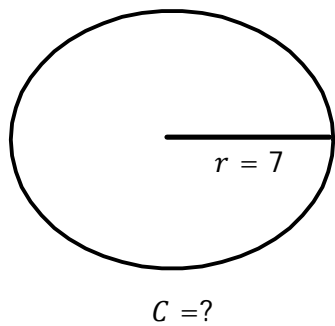
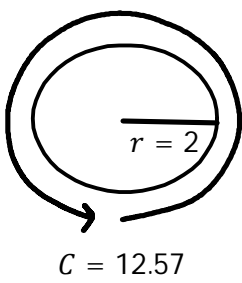
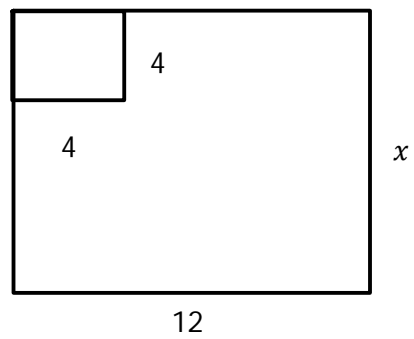
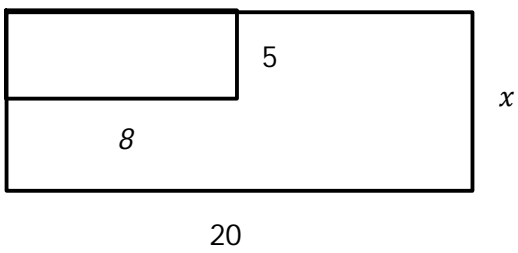
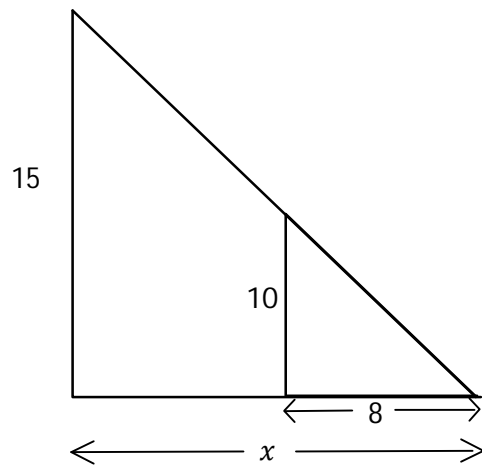
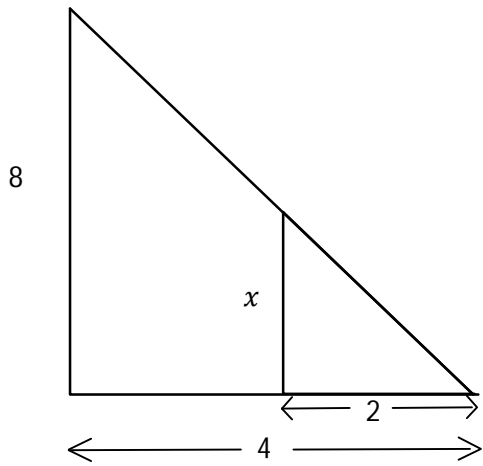
$$\frac{3}{7} = \frac{13}{x}$$

$$\frac{7}{9} = \frac{20}{x}$$

$$\frac{4}{5} = \frac{35}{x}$$

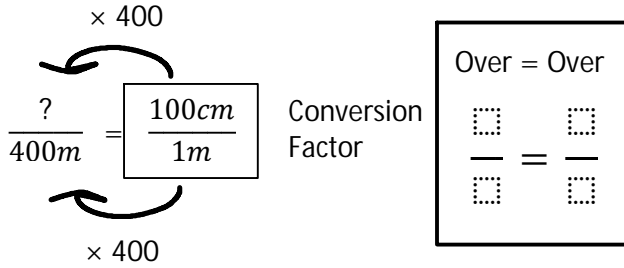
$$\frac{6}{7} = \frac{50}{x}$$

M8 - 2.2 - Similar Shapes HW



M8 - 2.3 - Conversions Notes/HW

How many Centimeters around a 400 Meter track?



$$100cm \times 400 = 40000cm$$

There are 40000 cm around a 400 m track.

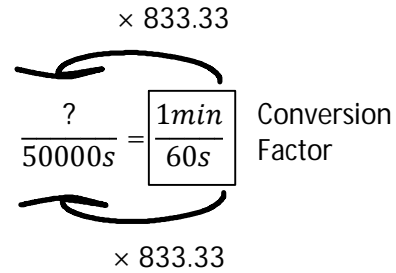
1cm = 10mm
1m = 100cm
1km = 1000m

1min = 60s
1hr = 60min

1in = 2.54cm
1m = 3.3ft
1ft = 30.48cm
1yd = 0.9144m
1mi = 1.609 km

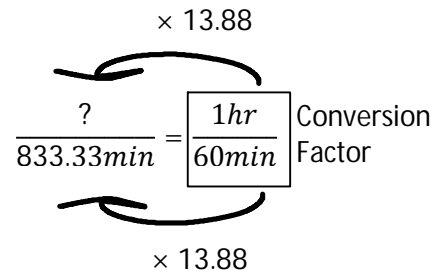
Two Steps

How many Hours in 50000 Seconds?



$$1min \times 833.33 = 833.33min$$

There are 833.33 min in 50000s.



$$1hr \times 13.88 = 13.88hr$$

There are 13.88 hrs in 50,000 s

How many meters in 2400 km?

How many centimetres in 7.6 m?

How many days in 500 hours?

How many kilometres in 800 m?

How many seconds in 400 minutes?

How many inches in 8 cm?

How many centimetres in 3.5 km?

How many days in 10,000 hours?

How many inches in 3 m?

M8 - 2.4 - Unit Rates Notes/HW

Mandy drove 120 km in 2 hours. What is the unit speed?

$$\text{speed} = \frac{\text{distance}}{\text{time}}$$

$$\text{Speed} = \frac{120 \text{ km}}{2 \text{ hours}} \rightarrow \frac{120 \text{ km}}{2 \text{ hours}} = \frac{60 \text{ km}}{1 \text{ hour}} = 60 \text{ km/h}$$

$$\text{Unit Rate: } \frac{\#}{1}$$

Devon delivers 45 papers in 30 minutes. What is the unit rate at which he delivers papers?

$$\text{rate} = \frac{\text{quantity}}{\text{time}}$$

$$\text{Rate} = \frac{45 \text{ papers}}{30 \text{ minutes}} = \frac{1.5 \text{ papers}}{1 \text{ minute}}$$

Milk costs \$ 3.20 for a 4 L jug of milk. How much does the milk cost per litre?

$$\text{Cost} = \frac{\$}{\text{unit}}$$

$$\text{Cost} = \frac{\$ 3.20}{4 \text{ L}}$$

$$\frac{\$ 3.20}{4 \text{ L}} = \frac{\$ 0.80}{1 \text{ L}}$$

OR

$$\text{Liters per dollar} \frac{4 \text{ L}}{\$ 3.20} = \frac{1.25 \text{ L}}{1 \$}$$

Find the unit rate.

Fiona drove 400 km in five hours.

Mark reads 200 pages in 300 minutes.

Tatsuma eats 13,000 calories per week.

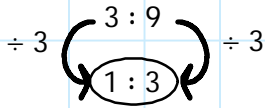
Isabel pays \$42.50 for 35 L of gasoline.

Sarah buys 15 pounds of oats for eight dollars.

Igor drinks a soda with 40 g of sugar in 330 mL.

M8 - 2.5 - Equal Ratios HW

Simplify the following ratios ie. #:1



$6 : 8$

$12 : 20$

$14 : 21$

$6 : 18$

$3 : 6$

$5 : 20$

$4 : 6$

$18 : 36$

$14 : 49$

$6 : 26$

$16 : 20$

$14 : 24$

$21 : 35$

$25 : 30$

$9 : 12$

$12 : 28$

$14 : 18$

$32 : 40$

$54 : 63$

Solve the following ratios.

$$\begin{array}{l} 10:5 \\ x:3 \end{array}$$

$$\begin{array}{l} 7:98 \\ x:400 \end{array}$$

$$\begin{array}{l} 1:15 \\ x:225 \end{array}$$

$$\begin{array}{l} 2:3 \\ x:8 \end{array}$$

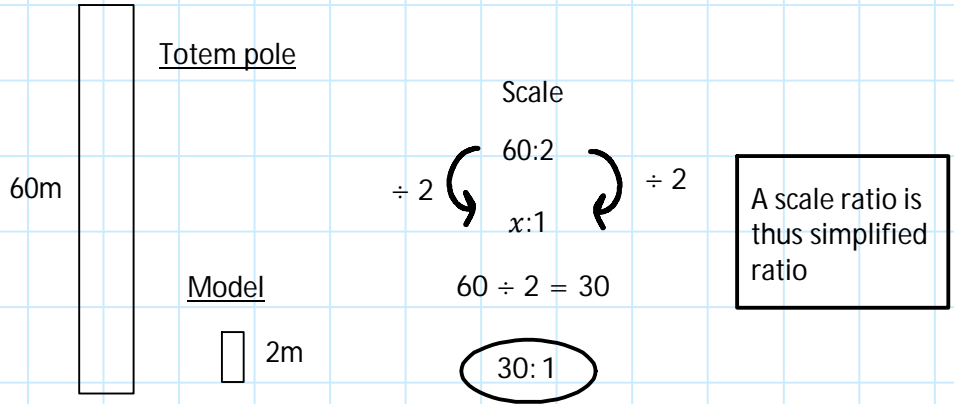
$$\begin{array}{l} 10:9 \\ 8:x \end{array}$$

$$\begin{array}{l} 2:x \\ 4:7 \end{array}$$

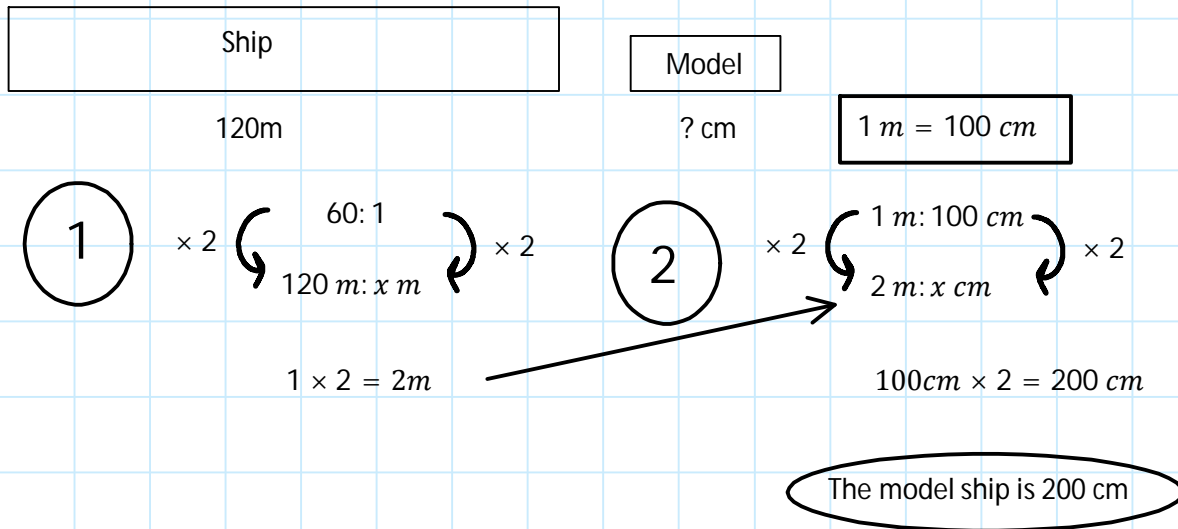
$$\begin{array}{l} x:5 \\ 3:7 \end{array}$$

M8 - 2.6 - Scale Ratio Notes/HW

A totem pole is 60m tall. A model totem pole is 2m tall. What is the scale as a ratio?



A ship is 120m long. How long is the model in centimeters if the scale is 60:1



The Burj Khalifa I Dubai is 830 m tall. A scale model is 2 m tall. What is the scale ratio?

A model of the Titanic is 200 cm long. How long was the Titanic in meters if the scale was 1:135?

M8 - 2.7 - Ratios Marbles HW

There are 13 boys and 15 girls in a classroom. If the school has the same ratio of boys to girls how many girls are in the school with 325 boys? How many students are in the school?

Bruce exercises three days a week. How many days does he exercise in a year?

Angelina does one and a half hours of homework every night. How many hours of homework does she do each week? How many hours does she do each year?

There are 300 total blocks in a toy bin of only dinosaurs and cars. If there are double the number of dinosaurs as cars how many dinosaurs are there?

Humans sleep eight hours each night on average. If a human lives for 80 years how many hours of sleep will they sleep?

Tectonic plates move 2 centimetres per year on average. How many years did the Pacific ocean of width about 17,700 km take to form from Pangea?