math Antics Worksheets

Name:

Date:

Cross Multiplying to Find an Unknown

PRO 1

Instructions: For each of these proportions (without units), use the cross-multiplying procedure you learned in the video to solve for the unknown number 'n'.

1 $\frac{n}{9} = \frac{2}{3}$

$n \times 3 = 9 \times 2$

$\frac{n \times 3}{3} = \frac{18}{3}$

$n = 6$

2 $\frac{5}{n} = \frac{2}{8}$

3 $\frac{n}{4} = \frac{12}{6}$

4 $\frac{2}{9} = \frac{n}{45}$

5 $\frac{3}{8} = \frac{n}{32}$

6 $\frac{7}{3} = \frac{21}{n}$

7 $\frac{7}{3} = \frac{35}{n}$

8 $\frac{n}{6} = \frac{5}{30}$

math Antics Worksheets

Name:

Date:

Cross Multiplying to Find an Unknown - Set 2

PRO 2

Instructions: For each of these proportions (without units), use the cross-multiplying procedure you learned in the video to solve for the unknown number 'n'. You can use a calculator for this set.

1 $\frac{n}{7} = \frac{2}{5}$

$n \times 5 = 7 \times 2$

$\frac{n \times 5}{5} = \frac{14}{5}$

$n = 2.8$

2 $\frac{8}{n} = \frac{15}{6}$

3 $\frac{n}{5} = \frac{3}{10}$

4 $\frac{7}{12} = \frac{n}{6}$

5 $\frac{3}{5} = \frac{n}{32}$

6 $\frac{4}{3} = \frac{51}{n}$

7 $\frac{5}{7} = \frac{1.2}{n}$

8 $\frac{n}{10} = \frac{3}{2.5}$

math Antics Worksheets

Name:

Date:

Proportion Word Problems

Instructions: Use proportions to answer each of these word problems. You can use a calculator.

1 If 2 liters of sea water contain 70 grams of salt, how much salt is in 32 liters of sea water?

$$\frac{70 \text{ grams}}{2 \text{ liters}} = \frac{n \text{ grams}}{32 \text{ liters}}$$

$$70 \times 32 = 2 \times n$$

$$\frac{2{,}240}{2} = \frac{2 \times n}{2}$$

$$n = 1{,}120 \text{ grams}$$

2 If it takes 930 kg of food to feed a pair of elephants for 3 days, how much food would you need to feed them for a week?

3 If a fuel efficient car can go 210 miles on 4 gallons of fuel, how far can it go on 12 gallons?

4 If a farmer gets 340 bushels of corn from 2 acres of land, how many bushels can they get from 15 acres?

5 A factory can make 20 toasters in a half-hour (0.5 hrs) How many toasters can the factory make in 6.5 hours?

6 On a scaled drawing, a building measures 4.5 cm tall. If the scale of the drawing is 25 meters per 2 cm, how tall is the actual building?

math Antics Worksheets

Name:

Date:

Proportion Word Problems - Set 2

PRO 4

Instructions: Use proportions to answer each of these word problems. You can use a calculator.

1. A rain gauge collected 0.2 inches of rain in 30 minutes. If it keeps raining at the same rate, what's the total time it will take to collect 1 inch of rain?

2. A biologist counted 15 squirrels in 3 acres of forest. Based on that data, how many squirrels would be expected to inhabit a 275 acre forest?

3. A runner burned 120 calories on a 1.6 km run. How many calories would they burn on a 5 km run?

4. If 3 oranges cost $1.75, how much would 20 oranges cost?

5. If it takes 2.3 gallons of milk to make 2 pounds of cheese, how many pounds of cheese can you make with 50 gallons of milk?

6. If you need 8 oz of chocolate chips to make 1.6 lbs of cookie dough, how many ounces of chocolate chips will you need to make 7 pounds of cookie dough?

math Antics Worksheets

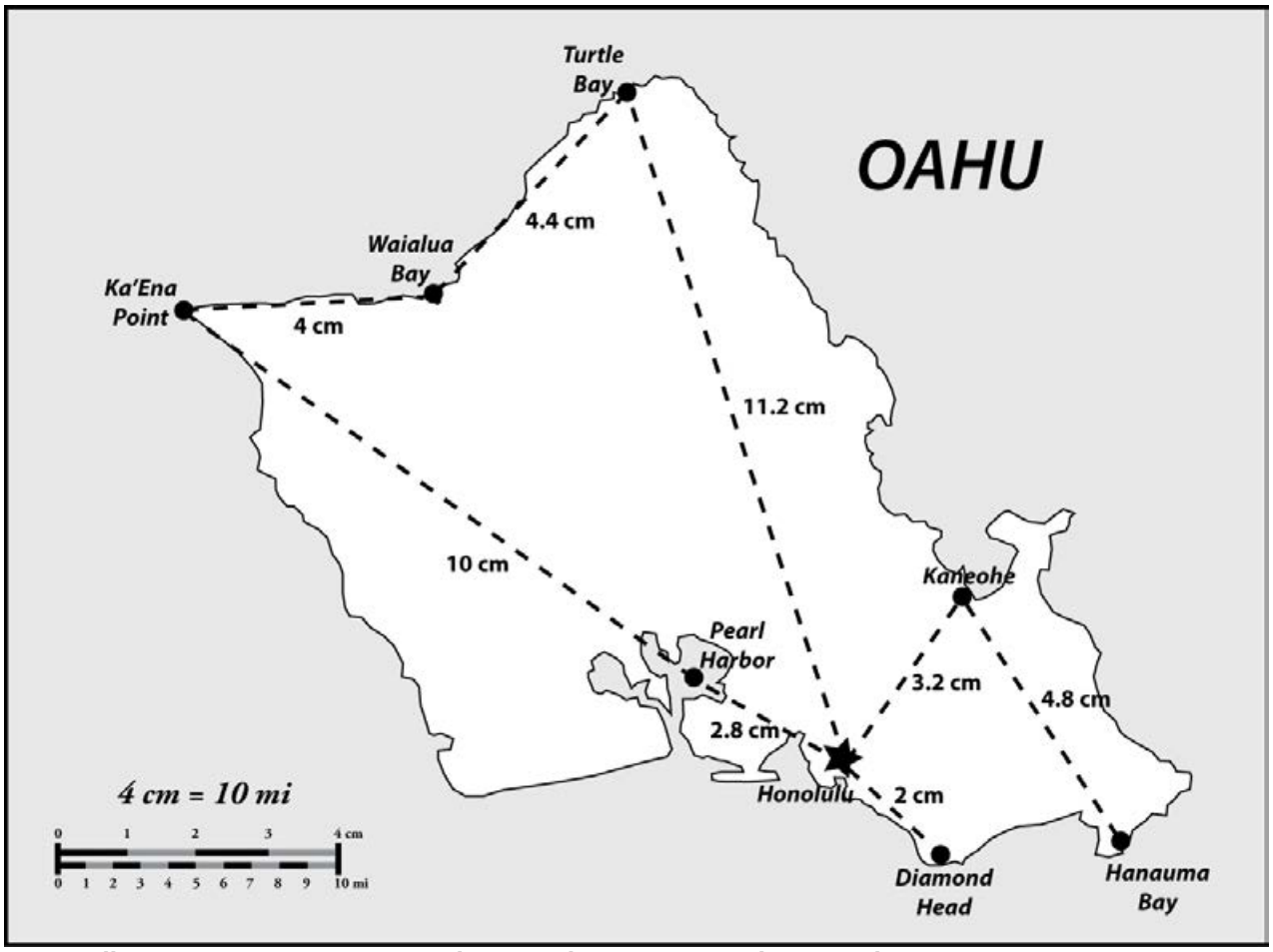
Name:

Date:

Scaled Drawing Problems - page 1

PRO 5

Instructions: Use this map to answer the questions below and on the following page.



note: all measurements are approximate, printout may not be to scale

1 How many miles is it from Honolulu to Diamond Head?

$$\frac{4 \text{ cm}}{10 \text{ mi}} = \frac{2 \text{ cm}}{n \text{ mi}}$$

$$4 \times n = 10 \times 2$$

$$\frac{4 \times n}{4} = \frac{20}{4}$$

$n = 5$ miles

2 How many miles is it from Honolulu to Pearl Harbor?

math Antics Worksheets

Name:

Date:

Scaled Drawing Problems - page 2

PRO 6

Instructions: Use the map on the previous page to answer these questions.

see previous page

3 How many miles is it from Honolulu to Turtle Bay?

4 How many miles is it from Turtle Bay to Waialua Bay?

5 How many miles is it from Pearl Harbor to Ka'Ena Point?

6 How many miles is it from Honolulu to Kaneohe?

7 How many miles is it from Kaneohe to Hanauma Bay?

8 How many miles is it from Ka'Ena Point to Waialua Bay?