math Antics Worksheets

Name: _____

Date: _____

Comparing Common Units of Distance

G-UOD 1

1 Put these common traditional units of distance in order from shortest to longest.

yard inch mile foot

inch, foot, yard, mile

shortest → longest

2 Put these common metric units of distance in order from shortest to longest.

kilometer centimeter millimeter meter

millimeter, centimeter, meter, kilometer

shortest → longest

3 Which metric unit is closest in length to a yard? a meter

4 Is a meter longer than a yard? yes

5 Which metric unit is closest in length to a mile? a kilometer

6 Is a kilometer longer than a mile? no

7 Approximately how many kilometers are in 10 miles? 16

8 Which is longer, an inch or a centimeter? an inch

9 Approximately how many centimeters are in an inch? 2.5

10 How many inches are in a foot? 12

11 How many feet are in a yard? 3

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Choosing the 'Best' Metric Unit

G-UOD 2

Instructions: For each problem below, decide which common metric unit you think would be best for measuring the object listed. You can write the whole word or just the abbreviation of that unit.

millimeters: mm **centimeters: cm** **meters: m** **kilometers: km**

1. The length of a pencil — cm
2. The diameter of a water tower — m
3. The length of a highway — km
4. The width of a fruit fly — mm
5. The perimeter of a swimming pool — m
6. The radius of a bicycle tire — cm
7. The distance between two cities — km
8. The thickness of a pancake — mm
9. The depth of a lake — m
10. The length of a bee's wing — mm
11. The height of a building — m
12. The diameter of a cake — cm

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Choosing the 'Best' Traditional Unit

G-UOD 3

Instructions: For each problem below, decide which common traditional unit you think would be best for measuring the object listed. You can write the whole word or just the abbreviation of that unit.

inches: in **feet: ft** **yards: yd** **miles: mi**

1. The length of a hot dog — in
2. The depth of a swimming pool — ft
3. The diameter of a basketball — in
4. The length of a basketball court — yd (or ft)
5. The distance across an ocean — mi
6. The width of a bedroom — ft
7. The width of an envelope — in
8. The length of playground — yd (or ft)
9. The height of a ladder — ft
10. The height of California — mi
11. The diameter of a pumpkin — in
12. The length of a boat — ft

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Name:

Date:

Simple Metric Distance Conversions

G-UOD 4

Instructions: To answer the following questions, remember these simple metric relationships you learned in the video lesson.

1 kilometer = 1,000 meters **1 meter = 100 centimeters** **1 centimeter = 10 millimeters**

Hint: *If you are converting from a bigger unit to a smaller one (i.e. km to m) you will need to multiply, but if you are converting from a smaller unit to a bigger one (i.e. cm to m) you will need to divide.*

1 How many meters are equivalent to 2 kilometer?

since: 1 km = 1,000 m
x 2 x 2
then: 2 km = 2,000 m

2 How many centimeters are equivalent to 50 millimeters?

since: 1 cm = 10 mm
we need to divide our 50 mm into groups of 10
50 mm ÷ 10 = 5 cm

3 How many millimeters are equivalent to 8 centimeters?

since: 1 cm = 10 mm
x 8 x 8
then: 8 cm = 80 mm

4 How many kilometers are equivalent to 3,000 meters?

since: 1 km = 1,000 m
3,000 m ÷ 1,000 = 3 km

5 How many centimeters are equivalent to 12 meters?

since: 1 m = 100 cm
x 12 x 12
then: 12 m = 1,200 cm

6 How many meters are equivalent to 400 centimeters?

since: 1 m = 100 cm
400 cm ÷ 100 = 4 m

7 How many meters are equivalent to 7 kilometer?

since: 1 km = 1,000 m
x 7 x 7
then: 7 km = 7,000 m

8 How many centimeters are equivalent to 60 millimeters?

since: 1 cm = 10 mm
60 mm ÷ 10 = 6 cm

9 How many centimeters are equivalent to 2.5 meters?

since: 1 m = 100 cm
x 2.5 x 2.5
then: 2.5 m = 250 cm

10 How many kilometers are equivalent to 1,500 meters?

since: 1 km = 1,000 m
1,500 m ÷ 1,000 = 1.5 km

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Simple Traditional Distance Conversions

G-UOD 5

Instructions: To answer the following questions, remember these simple traditional distance relationships you learned in the video lesson.

1 mile = 1,760 yards **1 yard = 3 feet** **1 foot = 12 inches**

Hint: *If you are converting from a bigger unit to a smaller one (i.e. ft to in) you will need to multiply, but if you are converting from a smaller unit to a bigger one (i.e. ft to yd) you will need to divide.*

1 How many inches are equivalent to 3 feet?

since: 1 ft = 12 in
x 3 x 3
then: 3 ft = (36 in)

2 How many yards are equivalent to 12 feet?

since: 1 yd = 3 ft
we need to divide our 12 ft
by 3 to see how many yards that is
12 ft ÷ 3 = (4 yd)

3 How many feet are equivalent to 3 yards?

since: 1 yd = 3 ft
x 3 x 3
then: 3 yd = (9 ft)

4 How many feet are equivalent to 24 inches?

since: 1 ft = 12 in
24 in ÷ 12 = (2 ft)

5 How many yards are equivalent to 2 miles?

since: 1 mi = 1,760 yd
x 2 x 2
then: 2 mi = (3,520 yd)

6 How many yards are equivalent to 30 feet?

since: 1 yd = 3 ft
30 ft ÷ 3 = (10 yd)

7 How many inches are equivalent to 4 feet?

since: 1 ft = 12 in
x 4 x 4
then: 4 ft = (48 in)

8 How many feet are equivalent to 60 inches?

since: 1 ft = 12 in
60 in ÷ 12 = (5 ft)

9 How many inches are equivalent to 1.5 feet?

since: 1 ft = 12 in
x 1.5 x 1.5
then: 1.5 ft = (18 in)

10 How many feet are equivalent to 6 inches?

since: 1 ft = 12 in
6 in ÷ 12 = (0.5 ft) or $\frac{1}{2}$ ft

math Antics Worksheets

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Estimating Distance Conversions

G-UOD 6

Instructions: To answer the following questions, remember these estimated conversions between metric and traditional units.

10 miles ≈ 16 kilometers **1 foot ≈ 30 centimeters** **1 inch ≈ 2.5 centimeters**

1 A pool is 4 feet deep. Estimate how many centimeters deep it is.

since: 1 ft ≈ 30 cm
x 4 x 4
then: 4 ft ≈ 120 cm

2 If you live 100 miles from the nearest big city, approximatly how many kilometers is that?

since: 10 mi ≈ 16 km
x 10 x 10
then: 100 mi ≈ 160 km

3 If you have to travel 5 miles to school, about how many kilometers is that?

since: 10 mi ≈ 16 km
÷ 2 ÷ 2
then: 5 mi ≈ 8 km

4 A tray is about 60 centimeters wide. What is its approximate width in feet?

since: 1 ft ≈ 30 cm
60 cm ÷ 30 ≈ 2 ft

5 If a drinking glass is 8 inches tall, what is its approximate height in centimeters?

since: 1 in ≈ 2.5 cm
x 8 x 8
then: 8 in ≈ 20 cm

6 If your friend is 5 feet tall, estimate their height in centimeters?

since: 1 ft ≈ 30 cm
x 5 x 5
then: 5 ft ≈ 150 cm

7 If the college you want to go to is 30 miles from your home, about how far is that in kilometers?

since: 10 mi ≈ 16 km
x 3 x 3
then: 30 mi ≈ 48 km

8 If a candle is 3 inches tall, about how many centimeters is that?

since: 1 in ≈ 2.5 cm
x 3 x 3
then: 3 in ≈ 7.5 cm or 8 cm

9 If your dog is 2.5 feet long, about how many centimeters long is it?

since: 1 ft ≈ 30 cm
x 2.5 x 2.5
then: 2.5 ft ≈ 75 cm

10 If your friend's hamster is 5 inches tall, about how many centimeters is that?

since: 1 in ≈ 2.5 cm
x 5 x 5
then: 5 in ≈ 12.5 cm or 13 cm