Math Antics®

Worksheets

Comparing Common Units of Distance

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__

▶ **Units of Distance • mathantics.com**

Math Antics® Worksheets

Choosing the 'Best' Metric Unit

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

Worksheets

Name: _____

Date: _____

Choosing the 'Best' Traditional Unit

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___

Math Antics
Worksheets

Name: _____

Date: _____

Simple Metric Distance Conversions

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
         × 2   × 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
         × 8   × 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
         × 12   × 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
         × 7   × 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
         × 2.5   × 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)

▶ **Units of Distance • mathantics.com**

![Math Antics Worksheets logo]

Simple Traditional Distance Conversions

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
    × 3   × 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
    × 3   × 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
    × 2   × 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
    × 4   × 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
    × 1.5   × 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

▶ **Units of Distance • mathantics.com**

Math Antics Worksheets

Name: _____

Date: _____

Estimating Distance Conversions

Instructions: To answer the following questions, remember these <u>estimated</u> 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
             × 4   × 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
                × 10   × 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
             × 8   × 8
then: 8 in ≈ (20 cm)

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

since: 1 ft ≈ 30 cm
             × 5   × 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
               × 3   × 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
               × 3   × 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
             × 2.5   × 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
              × 5   × 5
then: 5 in ≈ (12.5 cm) or 13 cm