



4th
Basic

5th
Advanced

Helping With Math

USA
GRADES

Conversion of Like Units (Measures of Distance)

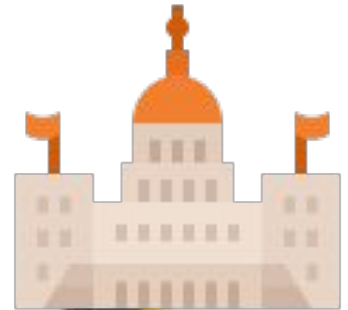
*Suitable for students
aged 8-10*



This pack is suitable for learners aged 8-10 years old or 4th to 5th graders (USA). The content covers fact files and relevant basic and advanced activities involving conversion of like units (measures of distance).

Distance measures the length of one object or place to another.

For example, just what like the icons portray, it will measure the length of the road from the car to the Capitol.



Trivia: The word distance came from the Latin word "distantia" which means separate, distance, or difference.



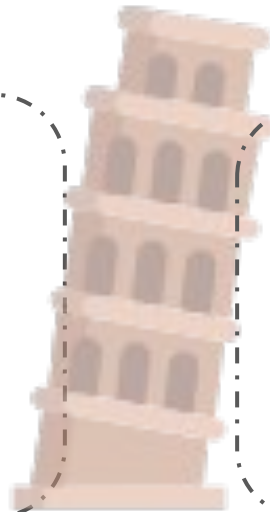
DISTANCE IN METRIC MEASUREMENT

METRIC MEASUREMENT OF DISTANCE

kilometer	km	1 km = 1,000 m or 10,000 cm
meter	m	1 m = 100 cm or 0.001 km
centimeter	cm	1 cm = 0.01 m or 0.0001 km

Examples:

1. 36 km = 3,600,000 cm
2. 26 m = 2,600 cm
3. 24 cm = 0.00024 km
4. 56 cm = 0.56 m
5. 29 km = 29,000 m



Try these:

1. 12 cm = _____ m
2. 35 cm = _____ km
3. 55 m = _____ cm
4. 46 km = _____ m
5. 98 km = _____ cm

In New York, USA, the Statue of Liberty is 10 km away from the Times Square. What is the distance measurement in meters?

$$10 \text{ km} \times 1,000 \text{ m} \\ = \mathbf{10,000 \text{ m}}$$

Now, convert 10,000 m to cm.



DISTANCE IN ENGLISH MEASUREMENT

ENGLISH MEASUREMENT OF DISTANCE

nautical mile	nmi	1 nmi = 6.076 ft or 1.151 mi
mile	mi	1 mi = 5,280 ft or 1,760 yd or 320 rd
furlong	fur	1 fur = 660 ft or 220 yd or $\frac{1}{8}$ mi
rod	rd	1 rd = 5.50 yd or 16.5 ft
fathom	fth	1 fth = 6 ft or 72 in
yard	yd	1 yd = 3 ft or 36 in
foot	ft	1 ft = 12 in or 0.333 yd
inch	in	1 in = 0.083 ft or 0.028 yd

Examples:

1. 28 nmi = 32 mi
2. 49 yd = 0.02 nmi
3. 41 ft = 0.01 mi
4. 55 in = 5 ft
5. 62 yd = 2,232 in



ENGLISH MEASUREMENT EXERCISES



Try these:

1. 45 nmi = _____ ft

2. 32 yd = _____ mi

3. 74 ft = _____ in

4. 69 in = _____ yd

5. 20 mi = _____ in



Two of the most popular landmarks, the Merlion and the Eiffel Tower, is 1,501 miles away. What is the distance in nautical miles?

$$1,501 \text{ mi} \div 1.151 \text{ nmi} \\ = \mathbf{1,304 \text{ nmi}}$$

Convert 1,304 nmi to ft.

Convert 1,304 nmi to yd.



TABLE OF ACTIVITIES

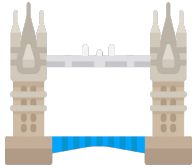
Ages 8-9 (Basic)		<u>4th Grade</u>
1	Facts Around the World	
2	Math and Places	
3	Historical Place	
4	Colorful Towers	
5	Family Travel	
Ages 9-10 (Advanced)		<u>5th Grade</u>
6	Wheels on Top	
7	Travel and Measure	
8	From a Distance	
9	Post-Travel Activities	
10	All About Measurements	



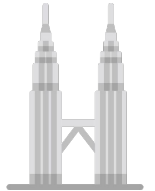
FACTS AROUND THE WORLD

G4
Basic

Identify if the statements are correct or not. Encircle True if the statement is right. Otherwise, choose False and underline the word/number that is incorrect then show how you get your answer.



1) The distance between the Tower Bridge and the Petronas Twin Towers is 3 km. If it is converted to meters, it will to 300.



True or False

Solution:



2) The Stonehenge and the Mayan Pyramids are 500 miles apart. When the measurement is converted into yards, it will be 808,000.



True or False

Solution:



3) Louvre and Eiffel Tower are 4000 meters away. It is believed to be 40,000 cm when converted.



True or False

Solution:



Have you been to these landmarks? Win a free tour by converting the following english measurement of distance.

1) $97 \text{ nmi} = \underline{\hspace{2cm}}$

yd

Solution:



2) $85 \text{ ft} =$

 in

Solution:



3) $58 \text{ in} =$

 yd

Solution:



4) $63 \text{ mi} =$

 ft

Solution:



HISTORICAL PLACE

G4
Basic

Make sure to convert the following metric measurement of distance and appreciate the beauty of some historical places.

1) 43 m = _____ cm

6) 8 km = _____ m

2) 95 cm = _____ m

7) 19 cm = _____ km

3) 29 m = _____ cm

8) 59 m = _____ km

4) 44 m = _____ cm

9) 10 m = _____ km

5) 18 m = _____ cm

10) 79 cm = _____ km

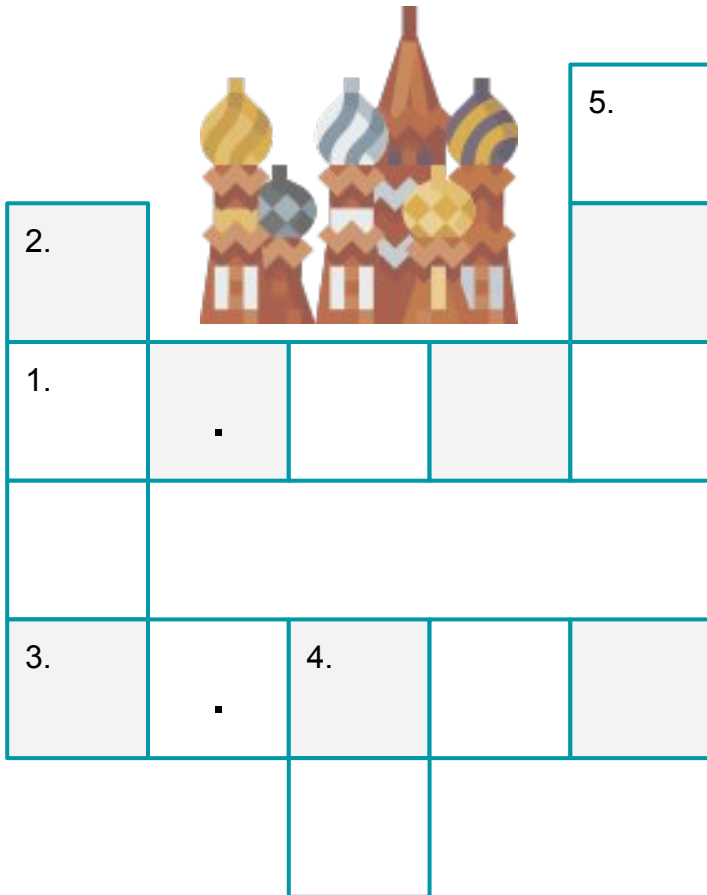
Solution:



COLORFUL TOWERS

G4
Basic

Be amazed of these colorful towers and temple as you complete the crossword puzzle below.



Horizontal:

1. 2 nmi = _____ mi

3. 2 ft = _____ yd

Vertical:

2. 3 mi = _____ yd

4. 10 fth = _____ ft

5. 8 rd = _____ ft

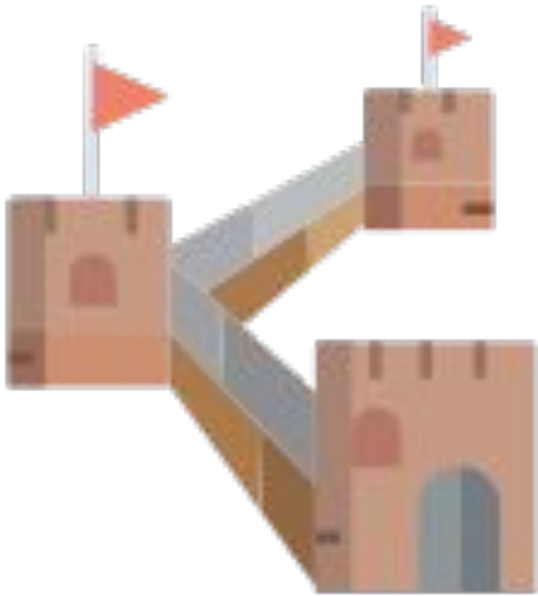
Solution:



FAMILY TRAVEL

G4
Basic

Use your understanding of distance to help the Sloan family on their travel. Write your answer on the space provided.



The Sloan family is travelling to China. One of their bucket list is to visit the Great Wall of China, which is 3,460 kilometers long. As part of their tradition to learn while travelling, convert the kilometers to centimeters and meters.



1) 3,460 km =

_____ cm

Solution:

2) 3,460 km =

_____ m

Solution:



WHEELS ON TOP

G5
Advanced

Experience how to be on top by answering the following questions below about measurement.



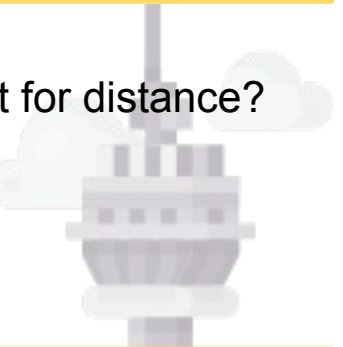
1) Which of the following units is a unit for distance?

- a. kg
- b. km
- c. mL
- d. g

Explanation:

2) Which is not an English unit of measurement for distance?

- a. nmi
- b. m
- c. mi
- d. ft



Explanation:

- 3. 1 in = _____ yd
- 4. 1 rd = _____ ft
- 5. 1 fur = _____ yd
- 6. 1 yd = _____ in
- 7. 1 ft = _____ yd
- 8. 1 nmi = _____ m
- 9. 1 mi = _____ rd
- 10. 1 fth = _____ ft

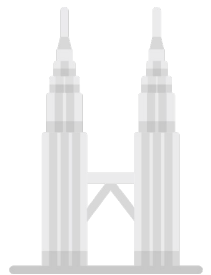


TRAVEL AND MEASURE

G5
Advanced

Refer to the problems below. Make sure to take note of the following on your next travel.

1) The Petronas Towers and Kuala Lumpur International Airport in Malaysia are 45 km away from each other. What is the equivalent of 45 km in m?



2) The Eiffel Tower and Big Ben Clock Tower has a distance of 213 miles from each other. How many yards are there in 213 miles?



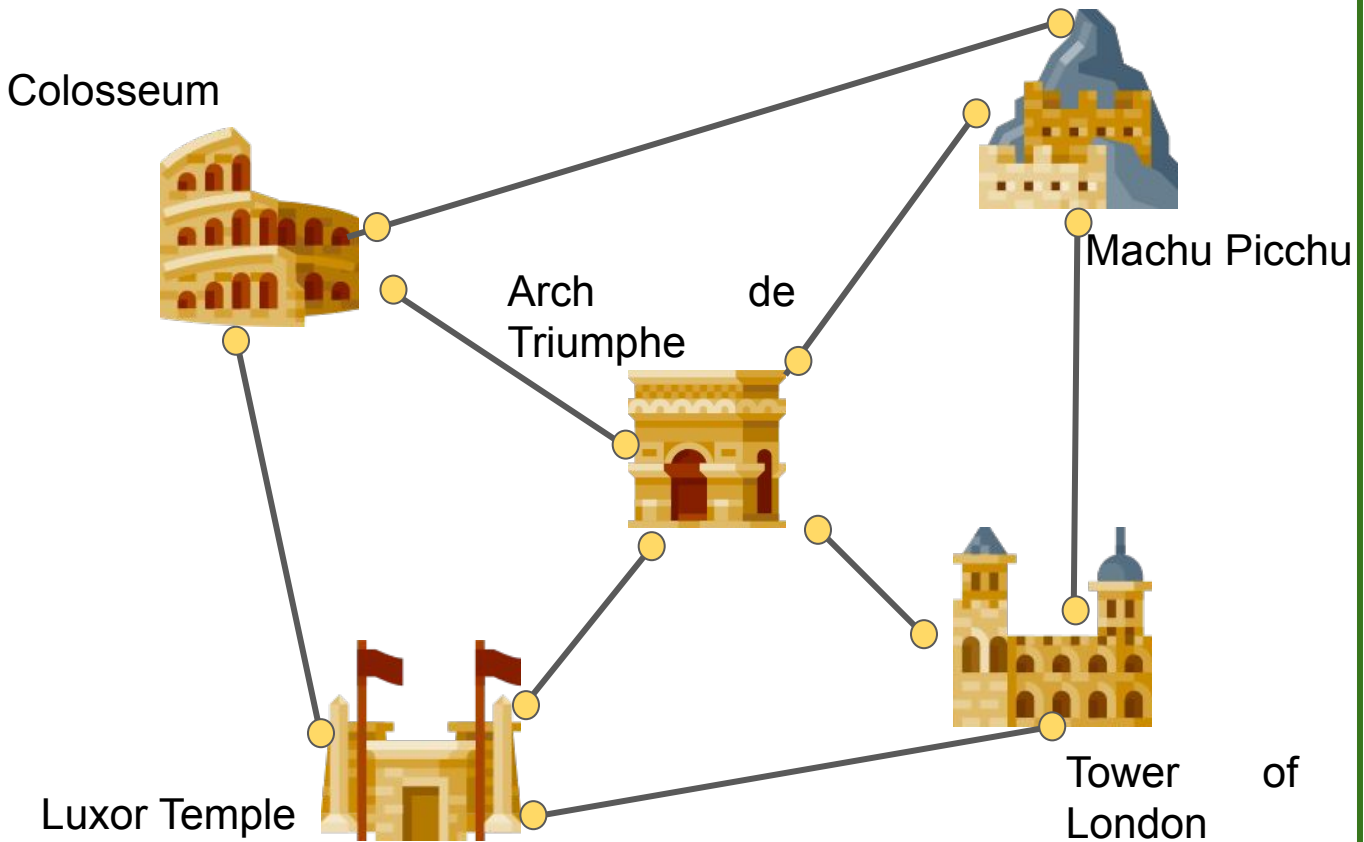
3) If a certain french restaurant is 6160 yd away from the Statue of Liberty, how many miles are there in 6160 yd?



FROM A DISTANCE

G5
Advanced

Assume that the distance of these palaces from each others are in scaled measurement. Using your ruler, measure the distance in cm and convert it to km.



Luxor Temple to Tower of London	_____ cm	_____ km
Colosseum to Machu Picchu	_____ cm	_____ km
Arch de Triumphe to Luxor Temple	_____ cm	_____ km
Machu Picchu to Tower of London	_____ cm	_____ km



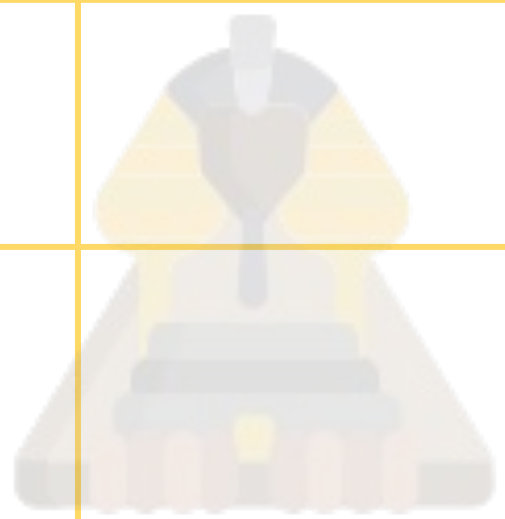
POST-TRAVEL ACTIVITIES

G5
Advanced

You just came from a long travel. You visited some landmarks and monuments. This time, do some measuring at home.

MEASURING DISTANCE

Tasks	Inches	Feet
Perform the Standing Long Jump then measure your distance from the starting point.		
Measure the distance of your dining table with sofa.		
Measure the distance of your study table from your bed.		
Measure the distance of your carpet from the main door.		



ALL ABOUT MEASUREMENTS

G5
Advanced

As we travel to different places, it is important to know the distance of each place that we will be heading to. Now, answer these essay questions.

1. Why do you think distance is being measured in the real-world setting?
2. What do you think will happen if we miscalculate distance?
3. Into which common life scenarios you find conversion of measurement in distance useful?
4. Share a personal experience about the application of conversion of measurements in distance in your life.



ANSWER GUIDE

Activity 1

1. False: 3,000
2. False: 880,000
3. False: 400,000

Activity 2

1. 196,461
2. 1,020
3. 1.61
4. 332,640

Activity 3

- | | |
|----------|-------------|
| 1. 4,300 | 6. 8,000 |
| 2. 0.95 | 7. 0.00019 |
| 3. 2,900 | 8. 0.059 |
| 4. 4,400 | 9. 0.01 |
| 5. 1,800 | 10. 0.00079 |

Activity 4

1. 2.302
2. 5,280
3. 0.667
4. 60
5. 132

Activity 5

1. 346,000,000
2. 3,460,000

Activity 6

- | | |
|----------|----------|
| 1. B | 6. 36 |
| 2. B | 7. 0.333 |
| 3. 0.028 | 8. 1.151 |
| 4. 16.5 | 9. 320 |
| 5. 220 | 10. 6 |

Activity 7

1. 45,000
2. 374,880
3. 3.5

Activity 8

1. 34, 0.00034
2. 46, 0.00046
3. 11, 0.00011
4. 24, 0.00024

Activities 9-10

Answers may vary.



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