

Learning Intentions

- To learn how to use unit rates to convert between different units

Unit Conversions

- There are _____ meters in a kilometer.
- There are _____ meters in a megameter.
- There are _____ meters in a gigameter.
- There are _____ centimeters in a meter.
- There are _____ millimeters in a meter.
- There are _____ micrometers in a meter.
- There are _____ nanometers in a meter.

- There are _____ inches in a foot.
- There are _____ centimeters in an inch.

Activity

You have just won an online contest and have been appointed Canada's "Ruler for a Day". For one day only, you will replace the meter as the basis of measurement for everything in Canada. To be a ruler, you will need to measure your height using meter sticks.

1. My height is _____ meters.

Questions

1. How tall are you...
 - a. in centimeters?

 - b. in kilometers?

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c. in inches?

d. in feet and inches (i.e. 5 feet 2 inches)?

2. It is about 3719 kilometers from Vancouver to Montreal.

a. How far is 3719 km in you's?

b. How far is 3719 km in kilo-you's?

c. How far is 3719 km in mega-you's?

d. How far is 3719 km in giga-you's?

3. The main chip in an iPhone 18 uses a 2 nanometer etching process.

a. How big is 2 nm in you's?

b. How big is 2 nm in milli-you's?

c. How big is 2 nm in micro-you's?

d. How big is 2 nm in nano-you's?

Biggest and Smallest Ever

- Tallest man ever: Robert Wadlow of the United States (272 cm)
- Tallest woman ever: Zeng Jinlian of China (246.3 cm)
- Shortest man ever: Chandra Bahadur Dangi of Nepal (54.6 cm)
- Shortest woman ever: Pauline Musters of the Netherlands (61 cm)

Questions

4. Compare yourself to either the tallest man or tallest woman to ever live.

a. I am choosing the tallest _____.

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b. How many you's tall are they?

c. What percent of your height are they?

d. What percent of their height are you?

e. By what percentage would your height have to increase to be as tall as them?

5. Compare yourself to either the shortest man or shortest woman.

a. How many you's tall are they?

b. What percent of your height are they?

c. What percent of their height are you?

d. By what percentage would your height have to decrease to be as tall as them?

Assessment

<https://curriculum.gov.bc.ca/curriculum/mathematics/8/core>

	Emerging	Developing	Proficient	Extending
Content				
Numerical proportional reasoning (rates, ratio, proportions, and percent)				
Curricular Competencies				
Understanding and solving				