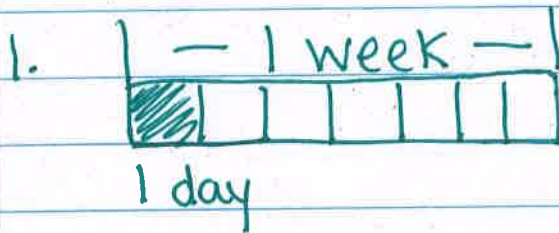
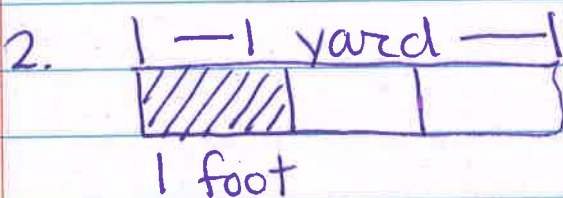


MZL4 -

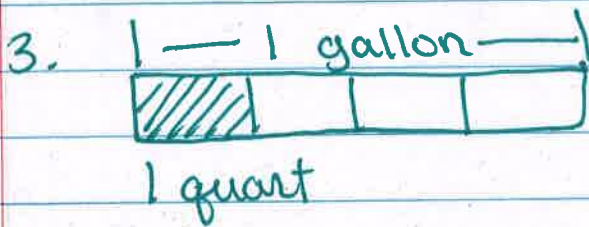
## Application Problem



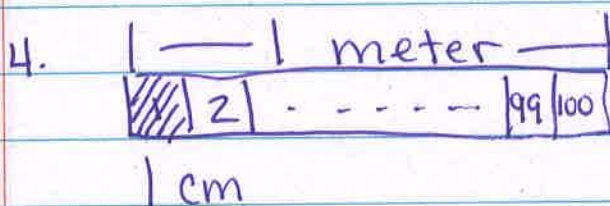
$$1 \text{ day} = \frac{1}{7} \text{ week}$$



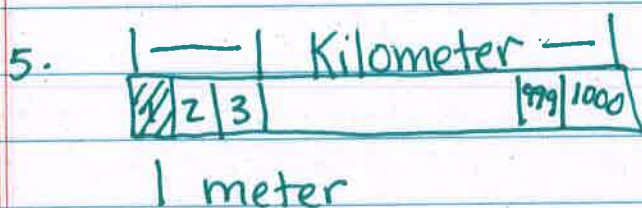
$$1 \text{ foot} = \frac{1}{3} \text{ yard}$$



$$1 \text{ quart} = \frac{1}{4} \text{ gallon}$$



$$1 \text{ centimeter} = \frac{1}{100} \text{ meter}$$
$$1 \text{ centimeter} = 0.01 \text{ meter}$$



$$1 \text{ meter} = \frac{1}{1000} \text{ Kilometer}$$
$$1 \text{ meter} = 0.001 \text{ Kilometer}$$

# m2L14: Equivalent Measurements

## Fluency

$$4 \times 1 \text{ banana} = 4 \text{ bananas}$$

$$4 \times 1 \text{ seventh} = 4 \text{ sevenths}$$

$$4 \times \frac{1}{7} = \frac{4}{7}$$

$$7 \times 1 \text{ seventh} = 7 \text{ sevenths}$$

$$7 \times \frac{1}{7} = \frac{7}{7} = 1$$

$$14 \times 1 \text{ seventh} = 14 \text{ sevenths}$$

$$14 \times \frac{1}{7} = \frac{14}{7} = 2$$

$$8 \times 1 \text{ fourth} = 8 \text{ fourths}$$

$$8 \times \frac{1}{4} = \frac{8}{4} = 2$$

$$12 \times 1 \text{ fourth} = 12 \text{ fourths}$$

$$12 \times \frac{1}{4} = \frac{12}{4} = 3$$

$$24 \times 1 \text{ third} = 24 \text{ thirds}$$

$$24 \times \frac{1}{3} = \frac{24}{3} = 8$$

$$\begin{aligned} 14 \text{ days} &= \underline{2} \text{ weeks} \\ \text{Expand} &= 14 \times (1 \text{ day}) \\ \text{Convert} &= 14 \times \left(\frac{1}{7} \text{ week}\right) \\ \text{Answer} &= \frac{14}{7} = 2 \end{aligned}$$

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$$\begin{aligned} 24 \text{ feet} &= \underline{8} \text{ yards} \\ \text{Expand} &= 24 \times (1 \text{ foot}) \\ \text{Convert} &= 24 \times \left(\frac{1}{3} \text{ yard}\right) \\ \text{Answer} &= \frac{24}{3} = 8 \end{aligned}$$

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$$\begin{aligned} 195 \text{ cm} &= \underline{1.95} \text{ m} \\ \text{E} &= 195 \times (1 \text{ cm}) \\ \text{C} &= 195 \times (0.01 \text{ m}) \\ \text{A} &= 1.95 \text{ m} \end{aligned}$$

$$\begin{aligned} 578 \text{ mL} &= \underline{0.578} \text{ L} \quad (0.001 \text{ L}) \\ \text{E} &= 578 \times (1 \text{ mL}) \\ \text{C} &= 578 \times (0.001 \text{ L}) \\ \text{A} &= 0.578 \text{ L} \end{aligned}$$

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Solve. The first one is done for you.

<p>a. Convert days to weeks.</p> <p>28 days = <math>28 \times (1 \text{ day})</math></p> <p>= <math>28 \times \left(\frac{1}{7} \text{ week}\right)</math></p> <p>= <math>\frac{28}{7} \text{ week}</math></p> <p>= 4 weeks</p>	<p>b. Convert quarts to gallons.</p> <p>E 20 quarts = <u>20</u> <math>\times (1 \text{ quart})</math></p> <p>C = <u>20</u> <math>\times \left(\frac{1}{4} \text{ gallon}\right)</math></p> <p>A = <math>\frac{20}{4}</math> gallons</p> <p>A = <u>5</u> gallons</p>
<p>c. Convert <u>centimeters</u> to <u>meters</u>.</p> <p>E 920 cm = <u>920</u> <math>\times (\underline{1} \text{ cm})</math></p> <p>C = <u>920</u> <math>\times (\underline{0.01} \text{ m})</math></p> <p>A = <u>9.20</u> m</p>	<p>d. Convert meters to kilometers.</p> <p>1,578 m = _____ <math>\times (\text{_____ m})</math></p> <p>= _____ <math>\times (0.001 \text{ km})</math></p> <p>= _____ km</p>
<p>e. Convert grams to kilograms.</p> <p>6,080 g =</p> <p>E <u>6080</u> <math>\times (1 \text{ g})</math></p> <p>C</p> <p>A</p>	<p>f. Convert milliliters to liters.</p> <p>509 mL =</p>