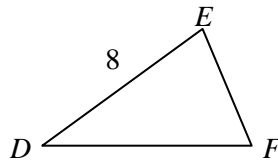
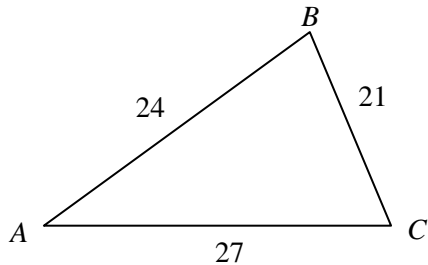


Measurement

Long-Term Memory Review Review 1

1. Is the statement true or false? If it is false, rewrite it to make it true.
The smallest unit of measure is the most **precise**.
2. The weight of a particular box of pretzels is 13 ounces. For quality control, the tolerance range for the weight of each box is 13 ± 0.01 ounces. Let x be the weight of a box of pretzels, in ounces. Write a compound inequality that describes the range of values of x .
3. Solve the formula, $d = rt$, for r . Then find the average rate of a car that traveled 60 miles in 2 hours.
4. The temperature outside was 95°F . What would the temperature be in degrees Celsius?
Note: $^{\circ}\text{C} = \frac{5}{9}(\text{F} - 32)$
5. Joey is purchasing a \$30 sweater. He has a 20% off coupon and pays 8.0% tax. What is the final cost for the sweater (plus tax)?
6. Fill in the blank: The lengths of the sides of two similar figures have equal _____.
7. Triangle ABC is similar to triangle DEF . Using the figures shown, what is the length EF ?



Measurement

Long-Term Memory Review Review 2

- Five measurements of the height of a computer screen were made by five students, as listed below. Which of the measurements is the most **precise**?
35 cm 350 mm 350.5 mm 352 mm 35.2 cm
- A piece of fabric needed to be cut to 3 feet. Instead, it was cut to 2 feet 11 inches. What was the **error** in the cut?
- Solve the formula of the area of a circle for the radius. Then use the new formula to find the radius of a circle with an area of $64\pi \text{ in}^2$.

Note: $A = \pi r^2$

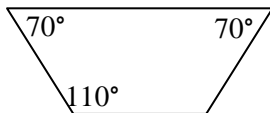
- The table below shows the total distance and the number of hours Don rode his bicycle on each of four days.

Don's Bicycle Rides

Day	Distance (miles)	Number of Hours
Monday	38	2.0
Wednesday	33	1.5
Friday	18	0.75
Saturday	45	2.25

Based on the table, on which day did Don ride at the **greatest** average speed?

- Joan's weekly **gross** income is \$800. She pays a tax rate of 7%. What is her **net** weekly income?
- Fill in the blank: The measures of the corresponding angles of two similar figures are _____.
- The two quadrilaterals shown below are similar.



What is the value of x ?

Measurement

Long-Term Memory Review Review 3

1. Which measurement of capacity is the most precise?
centiliter kiloliter liter milliliter
2. The diameter of each tire produced by a factory is measured in inches (in). Each diameter (x) must be within the range shown below.

$$30.010 \leq x \leq 30.020$$

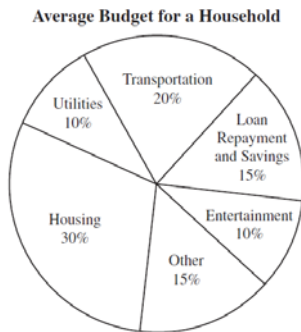
What is the tolerance range of the diameter of a tire produced by the factory?

3. The formula for calculating the volume (V) of a sphere with a given radius (r) is shown below.

$$V = \frac{4}{3} \pi r^3$$

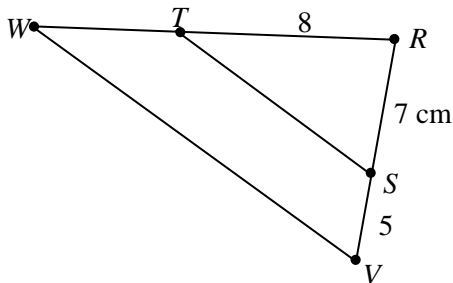
The volume of a sphere is $36\pi \text{ cm}^3$. What is the **diameter** of the sphere?

4. The circle graph below shows an average budget for a household in the state where Mario will live.



Mario finds an apartment he can rent for \$800 per **month**, including utilities. Based on the circle graph, what is the minimum **annual** salary Mario needs to earn so he can afford to rent the apartment?

5. Fill in the blank: If the ratio of the corresponding sides of two similar figures is $\frac{a}{b}$, then the ratio of the **areas** of the similar figures is _____.
6. In the diagram below, triangle RST is similar to triangle RVW .

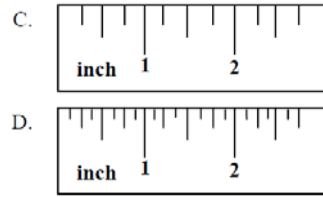
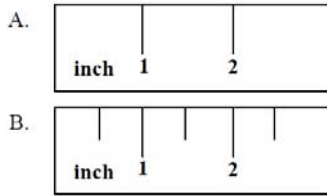


What is the length of side \overline{RW} ?

Measurement

Long-Term Memory Review Review 4

1. A student is measuring the length of a textbook with a ruler. Which shows the ruler with the greatest precision?



2. The table below shows the advertised and allowable weights of four brands of cereal when their boxes are filled.

Brand	Advertised Weight	Allowable Minimum Weight	Allowable Maximum Weight
A	12 oz	10.7 oz	13.3 oz
B	16 oz	14.9 oz	17.1 oz
C	20 oz	18.5 oz	21.5 oz
D	24 oz	22.7 oz	25.3 oz

Which brand of cereal has the smallest allowable weight tolerance when filled?

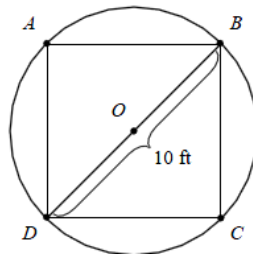
3. Samantha and Aidan leave a restaurant at 6:30 pm. They travel in opposite directions. Samantha drives 55 miles per hour and Aidan drives 45 miles per hour. At what time will they be 150 miles apart?

4. The water temperature was 20°C. What was the water temperature in degrees Fahrenheit?

Note: $^{\circ}\text{F} = \frac{9}{5}\text{C} + 32$

5. Fill in the blank: If the ratio of the corresponding sides of two similar figures is $\frac{a}{b}$, then the ratio of the **volumes** of the similar figures is _____.

6. In the diagram below, square $ABCD$ is inscribed inside circle O . The diameter of circle O is 10 feet.



What is the area of square $ABCD$?

Measurement

Long-Term Memory Review

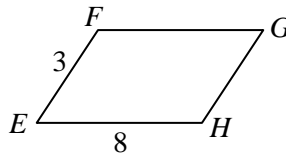
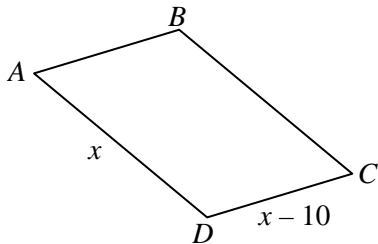
Quiz

1. Three boys, Tom, Mike, and Joe, measured the length of Fido's tail. The measurements are shown in the table below.

Boy	Measured Length
Tom	12 cm
Mike	13.2 cm
Joe	12.73 cm

The actual length of Fido's tail is 12.5 cm. Who had the most accurate measurement?

2. A factory requires that the tires they make have diameters that are within the tolerance range of 30 ± 0.05 inches. A tire is produced that has a diameter of 29.2 inches. Is the tire acceptable? Why or why not?
3. The formula for the area of a triangle is $A = \frac{1}{2}bh$. Solve the formula for h .
3. Maria swims in a pool that is 100 feet long. She swims the length of the pool 15 times each day. At this rate, about how many days will it take Maria to swim a total distance of 1 mile? (1 mile = 5,280 feet)
4. The temperature on a given day in San Diego is 86° Fahrenheit. What is the approximate equivalent temperature in Celsius? $^\circ\text{C} = \frac{5}{9}(F - 32)$
5. Fill in the Blank: If two triangles are similar, then each pair of their corresponding angles are _____ and each pair of their corresponding sides are _____.
6. In the diagram shown below, the parallelogram $ABCD$ is similar to parallelogram $EFGH$.



What is the value of x ?

Measurement

Long-Term Memory Review

ANSWERS

Review 1 – Answers

1. true
2. $12.99 \leq x \leq 13.01$
3. $r = \frac{d}{t}$, $r = 30$ mph
4. 25°C
5. \$25.92
6. ratio
7. 7

Review 2 Answers

1. 350.5 mm
2. 1 in
3. $r = \sqrt{\frac{A}{\pi}}$, $r = 8$
4. Friday
5. \$744
6. congruent
7. 55

Review 3 Answers

1. milliliter
2. $30.015 \pm .005$
3. 6 cm
4. \$24,000
5. $\frac{a^2}{b^2}$
6. $\frac{96}{7}$

Review 4 Answers

1. D
2. Brand B
3. 8:00 pm
4. 68°F
5. $\frac{a^3}{b^3}$
6. 50 ft^2

Quiz – Answers

1. Joe
2. No; It must be in the range $29.95 \leq x \leq 30.05$.
3. $h = \frac{2A}{b}$
4. 4 days
5. congruent; in proportion (or have equal ratios)
6. 16