Name: $\qquad$
Homework - Monday (April 29, 2019)
Solve the following problems without a calculator. You $\underline{M U S T}$ show your work. NO WORK = NO CREDIT.

1. Esteban drew Triangle JKL on a coordinate plane, with $\mathrm{J}(-3,5), \mathrm{K}(-1,-4)$, and $\mathrm{L}(2,4)$. Then he drew Triangle J'K'L', the result of the dilation ( $\mathrm{x}, \mathrm{y}$ ) -> $\left(\frac{2}{3} \mathrm{x}, \frac{2}{3} \mathrm{y}\right)$. What are the coordinates of Point J?

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| $\begin{array}{l}\text { 3. The Point }(5,-2) \text { is translated to the left } 3 \text { units. } \\ \text { What are the new coordinates? }\end{array}$ | What are the new coordinates?

2. Write your answer in scientific notation:

$$
\left(4.5 \times 10^{3}\right) \times\left(3.2 \times 10^{4}\right)
$$

4. The vertices of a triangle are located at $(-7,8),(-6,7)$, and $(-5,6)$. What will be the coordinates of the vertices after a reflection across the x -axis?

## Homework- Tuesday (April 30, 2019)

Solve the following problems without a calculator. You $\underline{M U S T}$ show your work. NO WORK = NO CREDIT.

1. In a triangle $\mathrm{XYZ}, \angle \mathrm{X}=37, \angle \mathrm{Y}=50$, and $\angle \mathrm{Z}=$ $3 x+6$.
a. What is the value of $x$ ?
b. What is the measure of $\angle \mathrm{Z}$ ?
2. The following diagram shows parallel lines cut by a transversal. What is the value of $x$ ?

3. Angles V and T are complementary angles. Angle T has a measure of $(2 x+5)$ degrees. Angle $V$ has a measure of 25 degrees. What is the value of $x$ ?
4. An unused roll of paper towels has a radius of 7.4 cm and a height of 14 cm . What is the volume of the unused roll? Round to the nearest tenth.

## Homework - Wednesday (May 1, 2019)

Solve the following problems without a calculator. You $\underline{M U S T}$ show your work. NO WORK = NO CREDIT.

1. Compare the volume of a cylinder and a sphere if the sphere can fit inside the cylinder with a diameter of 30 ft .
a. Volume of the cylinder
b. Volume of the sphere
2. The circumference of a circle is 190 meters. What is the approximate radius of the circle, rounded to the nearest meter?
3. The diameter of a sphere is 6 cm . What is the volume of the sphere (in terms of pi).
4. The diameter of a cone-shaped paper cup is 8 centimeters, and the height is 10 centimeters. The radius of another cone-shaped paper cup is 3 centimeters, and the height is 11 centimeters.
a. Find the volume of each paper cup to the nearest tenth of a cubic centimeter.
b. Which cup holds more water?

## Homework - Thursday (May 2, 2019)

Solve the following problems without a calculator. You $\underline{M U S T}$ show your work. NO WORK = NO CREDIT.

1. The lengths of the legs of a right triangle are 7.5 inches and 10.0 inches. What is the length of the hypotenuse of this right triangle?
2. The vertices of a triangle are located at $\mathrm{L}(4,-3)$, $\mathrm{M}(1,-3)$, and $\mathrm{N}(1,0)$. What is the approximate perimeter of triangle LMN?
3. Which of the sets of measurements represents the lengths of the sides of a right triangle?
a. $10,24,26$
b. $5,12,34$
c. $12,18,30$
d. $1,2,9$
4. A ship leaves port A and sails 12 kilometers west to port B. It then sails 19 kilometers north to point C.
a. How far is the ship from port A ?
b. If the ship returns from port C to port A , how far did the ship travel?
