Geometry Test 1

Work in your NOTEBOOK!

1. Evaluate:
   (a) $7 - 12$
   (b) 4^2
   (c) $7 - 2 \cdot 3$
   (d) $4 \cdot (7 - 2)$
   (e) $6 - 8/2$
2. Substitute $x = 2, y = -12, z = 4$ into the expression $xy - z$.
3. Compare the following decimals with $<, >$ or $=$:
   (a) 0.5_____0.4
   (b) 0.415_____0.5
   (c) 3.131000_____3.131
4. Evaluate:
   (a) $3.4 + 5.2$
   (b) $2.4 + 3.815$
   (c) $9.6 - 3.7$
   (d) $15.4 \div 4$
5. Substitute $x = 1.6, y = -4.2$ into xy.
6. Write in scientific notation:
   (a) 54000
   (b) 514
   (c) 0.0054
7. Write each number as a decimal number
   (a) 6.7×10^3
   (b) 5.14×10^{-3}

8. Add or subtract the following fractions

   (a) $\frac{1}{5} + \frac{3}{5}$

   (b) $\frac{1}{4} + \frac{1}{5}$

   (c) $\frac{7}{3} - \frac{3}{4}$

9. Compare the fractions using $<, >$ and $=$:

   (a) $\frac{2}{7}$_____$\frac{1}{7}$

   (b) $\frac{-8}{9}$_____$\frac{2}{9}$

   (c) $\frac{3}{5}$_____$\frac{4}{7}$

10. Simplify the following fractions:

    (a) $\frac{3}{6}$

    (b) $\frac{10}{18}$

    (c) $\frac{10x^2}{18x^4}$

11. Convert the $\frac{3}{7}$ to a decimal.

12. Convert the 0.73 to a fraction.

13. Perform the indicated operations:

    (a) $\frac{3}{7} \cdot \frac{4}{5}$

    (b) $\frac{4}{5} \div \frac{1}{3}$

14. Illustrate each of the following by labeling two points P and T and drawing the picture:

    (a) R_{TP}

    (b) $\overline{TP}$

    (c) L_{TP}

15. Construct a triangle whose sides are length 3 cm, 5 cm, and 6 cm. What are the angles of that triangle.

16. There are 360^o longitude on the earth. How long is one degree if the circumference of the earth is 24,000 mile?

17. What is the definition of supplementary angles?

18. We have 2 points X and Y that are both less than 8 cm from a point Z:

(a) Draw a picture of the situation.

(b) What is the largest the distance from X to Y could be?

(c) What is the smallest the distance from X to Y could be?

19. Use a protractor to draw an angle of 60^o:

20. Given the image below, and $m\angle BAC = 32^o$ and $m\angle BAD = 63^o$ find $m\angle CAD$.