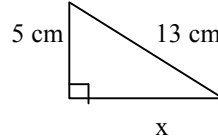
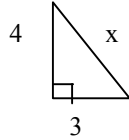


Extra Practice - Summative Examination Review

- Review the definitions from the statistics unit.
 - * What is a population?
 - * What is a sample?
 - * What is bias?
 - * What is a random sample, simple random sample, stratified sample, systematic sample?
 - * What is a scatter plot?
 - * What is a line of best fit?
 - * What is a positive correlation?
 - * What is a negative correlation?
 - * What is a weak correlation?
 - * What is a strong correlation?
 - * What is partial variation?
 - * What is direct variation?
 - What does a linear relationship look like graphically?
 - Give some "real-life" examples of linear relationships.
 - Give some "real-life" examples of non-linear relationships.
 - It costs \$100 to rent a hall for a banquet and \$15 for each person that attends. What is the slope of this relationship? What is the y-intercept of this relationship? What is the equation of this relationship?
 - If the cost of the hall is \$150 and the cost per person to attend is still \$15, how does that affect the slope and the y-intercept?
 - What is the slope of a horizontal line?
 - What is the slope of a vertical line?
 - a) Write the equation of the line with slope 5 and a y-intercept of -2.
 - b) Write the equation of the line with $m = \frac{-2}{3}$ and $b = 4$.
 - c) Write the equation of the line that passes through the point (1 , 4) with slope 5.
 - d) Write the equation of the line that passes through the point (-3 , 7) with slope -1.
 - e) Write the equation of the line that passes through the points (1 , 3) and (4 , -3)
 - f) Write the equation of the line that passes through the points (2 , 7) and (6 , -5)
 - g) Write the equation of the line with an x-intercept of 2 and a y-intercept of 6.
 - h) Write the equation of the line that passes through (7 , -3) and is perpendicular to $y = \frac{-1}{2}x + 3$.
 - i) Write the equation of the line that passes through (8 , 2) and is perpendicular to $y = 4x - 2$.
 - j) Write the equation of the line that passes through (6 , 5) and is parallel to $y = \frac{-1}{3}x + 4$.
 - k) Write the equation of the line that passes through (-1 , -3) and is parallel to $y = x$.
 - l) Write the equation of the line that passes through (4 , 5) and is parallel to the y-axis.
 - m) Write the equation of the line that passes through (4 , 5) and is perpendicular to the y-axis.
 - n) Write the equation of the line that passes through (-2 , -3) and is parallel to the x-axis.
 - o) Write the equation of the line that passes through (-2 , -3) and is perpendicular to the x-axis.
 - p) Write the equation of the horizontal line that passes through (1 , 2).
 - q) Write the equation of the vertical line that passes through (1 , 2).
- What are
 - a) Natural numbers?
 - b) Whole Numbers?
 - c) Rational Numbers?
 - What letter is used to represent
 - a) Natural numbers?
 - b) Whole Numbers?
 - c) Rational Numbers?
 - Simplify.
 - a) $\frac{-3}{-12}$
 - b) $-\frac{-1}{-14}$
 - c) $\frac{-2}{3} \times \left(-1\frac{1}{4}\right)$
 - d) $\frac{-1}{2} + \frac{1}{3} \times \frac{-3}{5}$
 - e) $\left(\frac{1}{6} + \frac{1}{3}\right) \times \left(\frac{-1}{2} + \frac{1}{4}\right)$
 - Simplify. Evaluate if possible.
 - a) $(6x^2)(5y^3)$
 - b) $(2x^2y)(x)$
 - c) $(x^2)(x^8)(x^3)$
 - d) $(4x^2y^3z)(3x^2y)$
 - e) $(x^3)^4$
 - f) $(5x^2)^3$
 - g) $(6x^4)^2$
 - h) $18x^3 \div 9x^2$
 - i) $15x^3 \div 15x^3$
 - j) $12x^4 \div 3x$

k) $x^5y^5 \div xy^5$ l) $\frac{16x^2y^3z^5}{8xy^3z^{-2}}$ m) $\frac{-15x^2y}{5xy}$

14. Find x. a)



15. In the expression, $3x^2 - 2x + 4$,

a) What is the constant term? b) What are the variable terms? c) What is the coefficient of x?

16. Write an example of a a) monomial. b) binomial. c) trinomial.

17. Simplify. Expand first, when necessary.

a) $15x^3 + 12x^2 + 2x + 7 - 16x^3 + x^2 - 16$ b) $2x^2y + 5xy - 7xy^2 + 6xy^2 - 6x^2y$
 c) $(2x + 3y + 7) + (6x + 2)$ d) $(3x - 4y - 8) + (9x - 4y - 9)$ e) $(6xy - 4x + 6) - (12xy - 5x + 1)$
 f) $(3x - 2) - (-4x - 1)$ g) $2(3x + 1)$ h) $3(3xy - 4x + 3)$ i) $2x(4x - 7)$
 j) $x^2 - (x - y + 6)$ k) $2(x + 7y) - 5(3x + 4y)$ l) $3x(x - 2) - 7(-2x - 6)$

18. Solve.

a) $15x = 45$ b) $15x + 12 = 2x - 1$ c) $6.1x - 2.1 = 4.3x + 1.5$ d) $\frac{x+3}{7} = 2$
 e) $3(x + 2) - 4(x + 1) = 10 + x$ f) $3 = \frac{2}{5}x + 4$ g) $\frac{x}{12} - 1 = \frac{x}{2} + \frac{1}{4}$

19. Find the x-intercept and y-intercept of $3x + 2y = 12$

20. Put $y = \frac{2}{3}x - 4$ in standard form.

21. Solve the following systems of equations graphically. Check your answer.

a) $y = 3x - 4$ b) $y = -x - 3$
 $y = x + 2$ $y = 3x + 5$

22. Review Measurement and Geometry Units. (See additional handouts)

23. What is the sum of the interior angles of a triangle?

24. What is the sum of the exterior angles of a polygon?

25. What is the sum of the interior angles of a quadrilateral?

26. What is the sum of the interior angles of a hexagon?

27. What is the measure of each exterior angle of a regular octagon?

REDO ALL OLD TESTS

Remember to bring a PENCIL, an eraser, a ruler and a CALCULATOR to your exam.

If you have not yet returned your textbook, bring that to your exam as well!

Happy Studying!!