

Name _____

8A; Algebra 1

Date _____

Period _____

Take Home Review Quiz #15

****Show ALL work on exam where possible****

Due: _____

#'s 1-18: Write the capital letter on the line. **4 points each.**

#'s 19-20: Leave all work on exam. **4 points each.**

#'s 21-22: Leave all work on exam. **5 points each.**

#23 Leave work on exam. **10 points**

1) _____

11) _____

2) _____

12) _____

3) _____

13) _____

4) _____

14) _____

5) _____

15) _____

6) _____

16) _____

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17) _____

8) _____

18) _____

9) _____

19 - 23: Leave on exam

10) _____

Name: _____

Date: _____

8A; Algebra 1

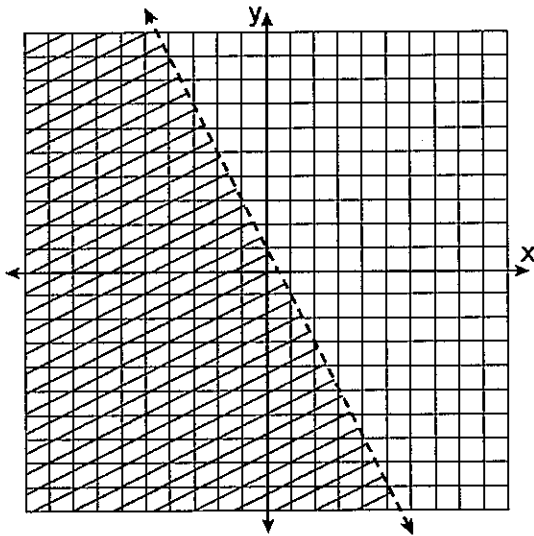
Period _____

Take home quiz # 15

Show all work!!!!!!

- 1) Which expression represents $\frac{(2x^3)(8x^5)}{4x^6}$ in simplest form?
- A) x^2 C) x^9
B) $4x^2$ D) $4x^9$
- 2) What property is illustrated by the equation $ax + ay = a(x + y)$?
- A) identity C) associative
B) commutative D) distributive
- 3) The length of a rectangular window is 5 feet more than its width, w . The area of the window is 36 square feet. What is an equation that could be used to find the dimensions of the window?
- A) $w^2 - 5w + 36 = 0$
B) $w^2 + 5w - 36 = 0$
C) $w^2 + 5w + 36 = 0$
D) $w^2 - 5w - 36 = 0$
- 4) What is a verbal expression that could represent $2(n - 6)$?
- A) two times the quantity n less than six
B) two times the quantity six less than n
C) two times n minus six
D) two times six minus n
- 5) The expression $\frac{9x^4 - 27x^6}{3x^3}$ is equivalent to
- A) $9x^3(1 - x)$ C) $3x(1 - 3x^2)$
B) $3x(1 - 9x^5)$ D) $3x(1 - 3x)$

- 6) What inequality is represented by the graph below?



- A) $y < -\frac{1}{2}x + 1$ C) $y < 2x + 1$
 B) $y < -2x + 1$ D) $y < \frac{1}{2}x + 1$

- 7) Given:

$$\text{Set } A = \{(-2, -1), (-1, 0), (1, 8)\}$$

$$\text{Set } B = \{(-3, -4), (-2, -1), (-1, 2), (1, 8)\}$$

What is the intersection of sets A and B ?

- A) $\{(-3, -4), (-2, -1), (-1, 2), (-1, 0), (1, 8)\}$
 B) $\{(1, 8)\}$
 C) $\{(-2, -1), (1, 8)\}$
 D) $\{(-2, -1)\}$

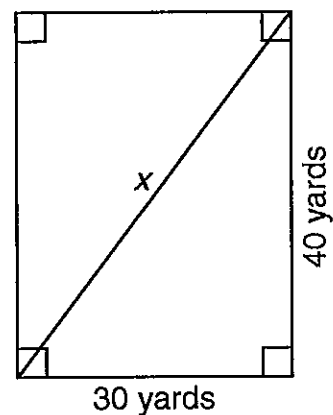
- 8) What is the slope of the line containing the points $(3, 4)$ and $(-6, 10)$?

- A) $-\frac{3}{2}$ C) $-\frac{2}{3}$
 B) $\frac{1}{2}$ D) 2

- 9) What is an equation for the line that passes through the coordinates $(2, 0)$ and $(0, 3)$?

- A) $y = -\frac{3}{2}x - 3$ C) $y = -\frac{3}{2}x + 3$
 B) $y = -\frac{2}{3}x + 2$ D) $y = -\frac{2}{3}x - 2$

- 10) Tanya runs diagonally across a rectangular field that has a length of 40 yards and a width of 30 yards, as shown in the diagram below. Hint: Use $a^2 + b^2 = c^2$



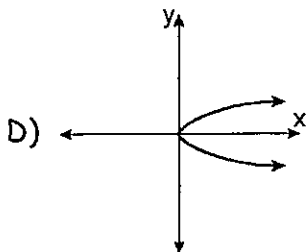
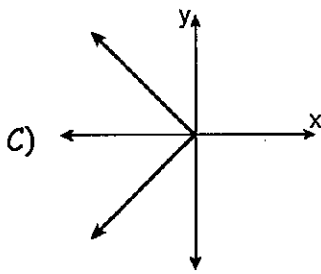
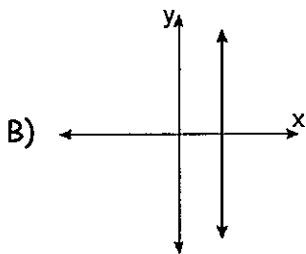
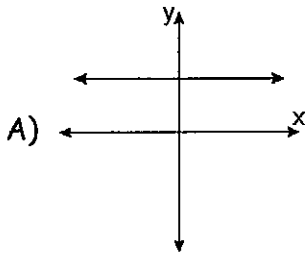
What is the length of the diagonal, in yards, that Tanya runs?

- A) 50 C) 60
 B) 70 D) 80

16) Which value of x is in the solution set of the inequality $-2x + 5 > 17$?

- A) -6 C) 12
B) -8 D) -4

17) Which of the following graphs represents a function?



18) What interval notation represents the set of all numbers from 2 through 7, inclusive?

- A) (2,7) C) [2,7)
B) (2,7] D) [2,7]

19) Solve for g . $3 + 2g = 5g - 9$

20) Express $5\sqrt{72}$ in simplest radical form.

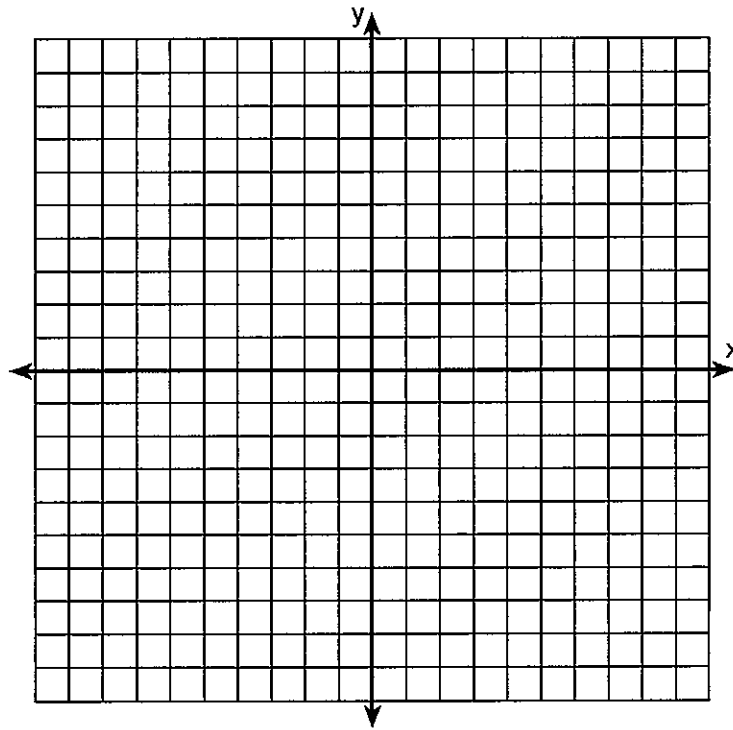
21) A prom ticket at *Smitty High School* is \$120. Tom is going to save money for the ticket by walking his neighbor's dog for \$15 per week. If Tom already has saved \$22, what is the *minimum* number of weeks Tom must walk the dog to earn enough to pay for one prom ticket? [Show all work.] (USE LIS. No check needed)

22) Solve for x : $\frac{x+1}{x} = \frac{-7}{x-12}$

23) (a) Solve the following systems of equations graphically, on the set of axes below.

$$y = x^2 - 6x + 5$$

$$2x + y = 5$$



(b) State the coordinates of the point(s) in the solution set.