<u>Algebra Review #30</u> *SHOW HOW YOU SOLVED EACH PROBLEM*
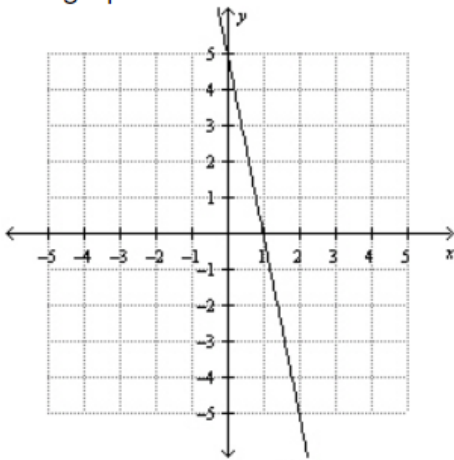
NAME _____

1.

Which statement is always true?
a. b + a = ab
b. b + (-a + a) = b + 0
c. a ÷ b = b ÷ a
d. b − a = a − b

2.

If $f(x) = \dfrac{3-x^2}{3-x}$, what is $f(2)$?

a. -2
b. -1
c. 1
d. 2

3.

The graph of the function $f(x) = -5x + 5$ is shown.

What is the value of $f(5)$?
a. 5
b. 0
c. −4
d. −20

4.

If $\frac{1}{3}t - 6 = 15$, what is the value of t?

a. 21
b. 27
c. 53
d. 63

5.

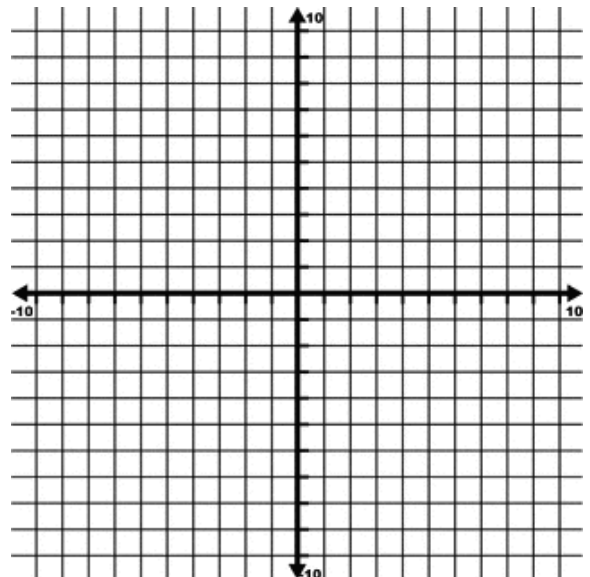The table shows the clothing purchases Jenny made last month and the tax charged for each purchase.

Clothing Purchases (in dollars), c	Tax (in dollars), t
35	3.15
40	3.60
22	1.98
68	6.12
74	6.66
31	2.79

Which equation represents the line that *best* fits the data?
a. t = 0.09c + 2.89   c. t = 0.09c
b. t = 0.91c   d. t = 1.09c

6. Draw a graph of the equation
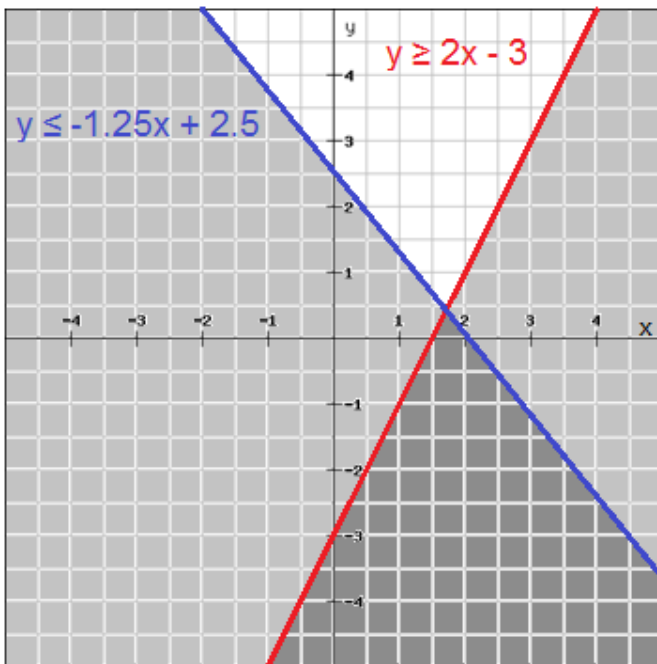$$-8y + 32 = 2x$$

Slope:_____   Y-intercept:_____

7.

What is $\sqrt{180}$ written in simplest radical form?

a. $5\sqrt{6}$

b. $4\sqrt{45}$

c. $6\sqrt{5}$

d. $6\sqrt{30}$

9.

Which expression is equivalent to $\left(a^2bc^3\right)\left(3a^3bc^4\right)^2$?

A. $6a^{12}b^2c^{24}$

B. $6a^8b^3c^{11}$

C. $9a^{12}b^2c^{24}$

D. $9a^8b^3c^{11}$

10. Solve for b:

$$4bh - B = A$$

8. Answer the following:

$y \geq 2x - 3$

$y \leq -1.25x + 2.5$

Is (3,-3) a solution to this system? YES or NO

Is (-3,0) a solution to this system? YES or NO