

Q2- Unit Review #1

Name: _____

Period: _____

1. If $(a, 3)$ is a solution to the equation $4a = -3b - 3$, what is a ?

2. What is the slope of the line through $(2, 10)$ and $(-4, 20)$?

3. Which equation is *not* a linear equation?

A $7v + 5w = 7$ B $\frac{x}{8} = y$

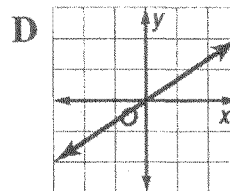
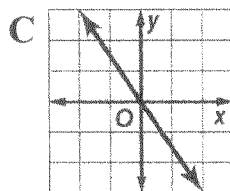
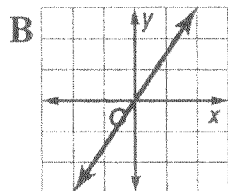
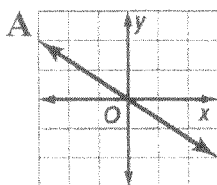
C $y = 5$

D $\frac{2}{x} + \frac{3}{y} = 6$

4. What is the slope of the line through $(-9, 2)$ and $(12, 9)$?

5. In 2005, there were 1,200 students at Calallen High. In 2010, there were 1,250. What is the rate of change in the number of students?

6. Which is the graph of $y = -\frac{3}{2}x$?



7. If y varies directly as x and $y = 98$ when $x = 14$, find x when $y = -4$.
8. If y varies directly as x and $y = 15$ when $x = 12$, find y when $x = 32$.
9. **DRIVING** A driver's distance varies directly as the amount of time traveled. After 5 hours, a driver had traveled 450 miles. How far had the driver traveled after 3 hours?
10. **SPRINGS** The amount a spring stretches varies directly as the weight of the object attached to it. If an 4-ounce weight stretches a spring 8 centimeters, how much weight will stretch it 14 centimeters?
11. Write in point-slope form of an equation for the line that passes through $(0, -7)$ with slope 3?
12. What is the slope-intercept form of $y + 8 = 3(x - 6)$?
13. Explain the difference between Parallel and Perpendicular lines?
14. Find the slope-intercept form of the equation of the line that passes through $(-7, 2)$ and is parallel to $16x - 4y = 1$.

15. Find the slope-intercept form of an equation for the line that passes through $(-5, 7)$ and is parallel to $y = x - 12$.

16. If line q has a slope of $\frac{2}{5}$, what is the slope of any line perpendicular to q ?

17. Find the slope-intercept form of an equation of the line perpendicular to the graph of $2x - 4y = 15$ and passing through $(1, 8)$.

18. Chris had \$225 in his savings account to buy a used car. He used the equation $A = 30w + 225$ to determine the amount in his savings, A , after depositing the same amount in his account every week, w .

a) What is the slope?

b) What does the slope represent in the context of the problem?

19. Dylan has been paying his credit card bill since January 1st. He has a balance owed of \$820 and pays \$125 a month.

- What is the slope and the meaning?
- What is the x- & y-intercept?
- Complete the table.

X	Y
0	
1	
2	
3	
4	
5	
6	
7	

- Label axis and Graph.

