

101) Which polynomial has the factorization  $(2x + 1)(4x^2 - 2x + 1)$ ?

A)  $2x^3 - 1$

B)  $8x^3 - 1$

C)  $2x^3 + 1$

D)  $4x^3 + 1$

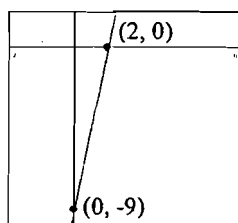
E)  $8x^3 + 1$

**Pre-Calculus/Trig. 3**  
**PSSA/SAT Review Packet**

- 102) The population of Yolinka is currently 52,300. If the population of the town increases by approximately 7% each year, what will the approximate population be in 8 years?  
A) 83, 980    B) 78,490    C) 89,860    D) 3,648,320

- 103) If  $y = \frac{2x}{7}$ , what happens to  $y$  if  $x$  is doubled?  
A)  $y$  is halved    B)  $y$  is doubled  
C)  $y$  is increased by a factor of 7    D)  $y$  is increased by 1

- 104) What is the equation of the line shown?



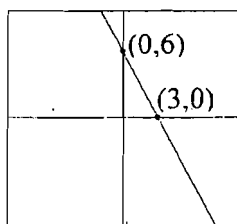
- A)  $9x - 2y = -18$     B)  $-9x - 2y = 18$   
C)  $9x + 2y = 18$     D)  $9x + 2y = -18$   
E)  $-9x + 2y = -18$

- 105) What is the  $y$ -intercept of the line  $-4x - \frac{1}{2}y = 10$ ?  
A) -20    B) -4    C)  $-\frac{5}{2}$     D) 5    E) 20

- 106) Write the equation  $3x - 4y = 20$  in slope-intercept form.  
A)  $y = -\frac{3}{4}x - 5$     B)  $y = -\frac{3}{4}x + 5$     C)  $y = \frac{3}{4}x - 5$   
D)  $y = \frac{3}{4}x + 5$     E)  $y = 20 - 3x$

- 107) Find the slope of the line passing through the points (1, 2) and (2, 1).  
A) 1    B) 3    C) 2    D) -1    E) -2

- 108) Which of these equations describes the line shown?



- A)  $y = -2x + 6$     B)  $y = -\frac{1}{2}x + 6$   
C)  $y = \frac{1}{2}x + 6$     D)  $y = 2x + 6$

- 109) Which of these equations shows this linear relationship?

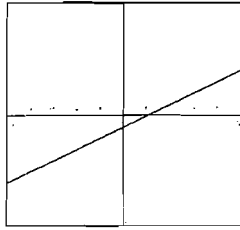
$x$	-2	-1	0	1	2
$y$	23	21	19	17	15

- A)  $y = -2x - 19$     B)  $y = 2x - 19$   
C)  $y = 2x + 19$     D)  $y = -2x + 19$   
E)  $y = -2x - 21$

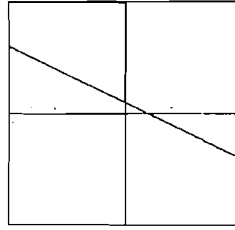
**Pre-Calculus/Trig. 3**  
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110) Which is the graph of  $y = -2x + 1$ ?

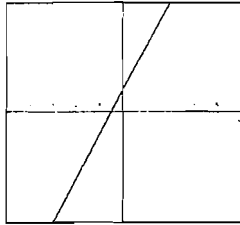
A)



B)



C)



D)

