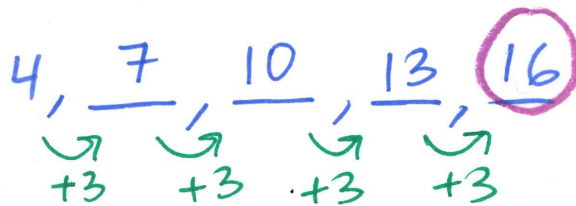


- 13 In a sequence, the first term is 4 and the common difference is 3. The fifth term of this sequence is

- (1) -11                      (3) 16  
 (2) -8                        (4) 19

changes by 3



- 14 The growth of a certain organism can be modeled by  $C(t) = 10(1.029)^{24t}$ , where  $C(t)$  is the total number of cells after  $t$  hours. Which function is approximately equivalent to  $C(t)$ ?

- (1)  $C(t) = 240(.083)^{24t}$                       (3)  $C(t) = 10(1.986)^t$   
 (2)  $C(t) = 10(.083)^t$                         (4)  $C(t) = 240(1.986)^{\frac{t}{24}}$

} type each into  $y =$   
 and see which  
 table matches  
 the one for  
 $y_1 = 10(1.029)^{24t}$

Use this space for computations.

- 15 A public opinion poll was taken to explore the relationship between age and support for a candidate in an election. The results of the poll are summarized in the table below.

Age	For	Against	No Opinion
21-40	30	12	8
41-60	20	40	15
Over 60	25	35	15

$\rightarrow$  whole =  $30 + 12 + 8 = 50$

What percent of the 21-40 age group was for the candidate?

- (1) 15    (3) 40  
 (2) 25    (4) 60

$\frac{\text{part}}{\text{whole}} = \frac{30}{50} = 0.6$   
 $\times 100$   
 60%

- 16 Which equation and ordered pair represent the correct vertex form and vertex for  $j(x) = x^2 - 12x + 7$ ?

- (1)  $j(x) = (x - 6)^2 + 43$ , (6,43)  
 (2)  $j(x) = (x - 6)^2 + 43$ , (-6,43)  
 (3)  $j(x) = (x - 6)^2 - 29$ , (6,-29)  
 (4)  $j(x) = (x - 6)^2 - 29$ , (-6,-29)

$\checkmark$  check graph in calc for vertex

Vertex Form:  
 $a(x-h)^2 + k$   
 opp. same  
 (h,k)

- 17 A student invests \$500 for 3 years in a savings account that earns 4% interest per year. No further deposits or withdrawals are made during this time. Which statement does not yield the correct balance in the account at the end of 3 years?

$\checkmark$  exponential growth

- (1)  $500(1.04)^3$   
 (2)  $500(1 - .04)^3$   
 (3)  $500(1 + .04)(1 + .04)(1 + .04)$   
 (4)  $500 + 500(.04) + 520(.04) + 540.8(.04)$

$A = P(1+r)^t$

$A = 500(1 + 0.04)^3$   
 $= 500(1.04)^3$   
 $= 500(1.04)(1.04)(1.04)$

18 The line represented by the equation  $4y + 2x = 33.6$  shares a solution point with the line represented by the table below.

Use this space for computations.

x	y
-5	3.2
-2	3.8
2	4.6
4	5
11	6.4

The solution for this system is

(1)  $(-14.0, -1.4)$

(2)  $(-6.8, 5.0)$

(3)  $(1.9, 4.6)$

(4)  $(6.0, 5.4)$

}

check answers :  
plug in x and y values  
into equation and see  
which one is true.