

the amount of money in a bank account over time. The function $g(x) = -25x + 9300$ represents the amount of money in another account over time. Write a rule for the total amount of money in the two accounts over time.

Select the best answer.

5. The enrollment at a summer camp over time can be represented by $f(x) = 24x + 465$. The cost to attend the camp is \$500 per summer. Write a rule for the amount of money the camp makes over time.

A $g(x) = 24x + 965$
 B $g(x) = 24x + 232,500$
 C $g(x) = 12,000x + 465$
 D $g(x) = 12,000x + 232,500$

6. Find the inverse of the function $f(x) = 0.25x + 12$.

F $g(x) = -0.25x - 12$
 G $g(x) = -4x - 12$
 H $g(x) = 4x - 48$
 J $g(x) = 4x + 48$

Oct 31-7:44 AM

Over time, the enrollment at one high school in a city can be modeled by $f(t) = 32t + 1255$. The enrollment at the city's other high school can be modeled by $g(t) = 27t + 1380$. Write a rule for the total enrollment as a function of time.

2. Use the functions from Problem 1 to find the difference in the enrollments between the two high schools. Write the answer using two different functions.

$h(t) = f(t) + g(t)$
 $f(t) = 32t + 1255$
 $g(t) = 27t + 1380$
 $h(t) = 59t + 2635$

$h(t) = f(t) - g(t)$
 Difference
 $h(t) = 32t + 1255 - (27t + 1380)$
 $h(t) = 32t + 1255 - 27t - 1380$
 $h(t) = 5t - 125$

*When Subtracting Distribute The Minus sign

Oct 31-7:57 AM

3. The function $f(x) = 50x + 6500$ represents the amount of money in a bank account over time. The function $g(x) = -25x + 9300$ represents the amount of money in another account over time. Write a rule for the total amount of money in the two accounts over time.

4. Use the functions from Problem 3 to find the difference in the amounts of money between the two accounts. Write the answer using two different functions.

$h(x) = f(x) + g(x)$
 $f(x) = 50x + 6500$
 $g(x) = -25x + 9300$
 $h(x) = 25x + 15800$
 TOTAL → WE ADD

SUBTRACT
 $h(x) = f(x) - g(x)$
 $50x + 6500 - (-25x + 9300)$
 $50x + 6500 + 25x - 9300$
 $h(x) = 75x - 2800$

Oct 31-8:04 AM

Select the best answer.

5. The enrollment at a summer camp over time can be represented by $f(x) = 24x + 465$. The cost to attend the camp is \$500 per summer. Write a rule for the amount of money the camp makes over time.

A $g(x) = 24x + 965$
 B $g(x) = 24x + 232,500$
 C $g(x) = 12,000x + 465$
 D $g(x) = 12,000x + 232,500$

6. Find the inverse of the function $f(x) = 0.25x + 12$.

F $g(x) = -0.25x - 12$
 G $g(x) = -4x - 12$
 H $g(x) = 4x - 48$
 J $g(x) = 4x + 48$

Given $x = .25y + 12$
 $y = .25x + 12$
 $x = .25y + 12$
 $x - 12 = .25y$
 $\frac{x-12}{.25} = y$
 $\frac{x-12}{\frac{1}{4}} = y$
 $4(x-12) = y$
 $4x - 48 = y$
 $g(x) = 4x - 48$

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7. Four friends go to an amusement arcade. The cost to get in is \$5 per person and the cost of each game is \$2. The cost per person can be represented by the function $g(x) = 2x + 5$. Write a rule for the total cost for the four friends if they all play the same number of games.

A $T(x) = 5x + 8$
 B $T(x) = 8x + 20$
 C $T(x) = 2x + 20$
 D $T(x) = 20x + 5$

$T(x) = 4(2x + 5)$
 $T(x) = 8x + 20$

8. Find the inverse of the function $f(x) = -\frac{2}{3}x - 18$.

F $g(x) = \frac{3}{2}x + 27$
 G $g(x) = -\frac{3}{2}x + 27$
 H $g(x) = -\frac{3}{2}x - 27$
 J $g(x) = \frac{3}{2}x - 27$

$y = -\frac{2}{3}x - 18$
 $x = -\frac{3}{2}y - 18$
 $x + 18 = -\frac{3}{2}y$
 $-\frac{3}{2}(x + 18) = y$
 $-\frac{3}{2}x - 27 = y$
 $g(x) = -\frac{3}{2}x - 27$

Oct 31-7:54 AM

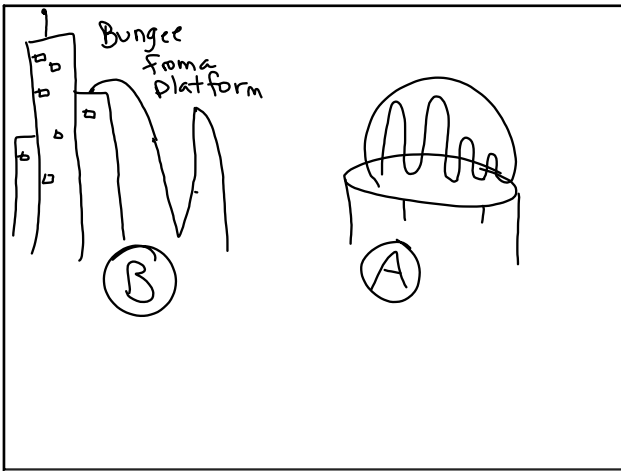
$-\frac{3}{2}(18x)$
 $-\frac{3}{2}(18x) = -27x$

$\frac{5}{6}x(36)$
 $\frac{5}{6}x(36) = 30x$

$\frac{2}{9}(45x)$
 $\frac{2}{9}(45x) = 10x$

$\frac{3}{7}x(\frac{21}{6})$
 $\frac{3}{7}x(\frac{21}{6}) = \frac{3}{2}x$

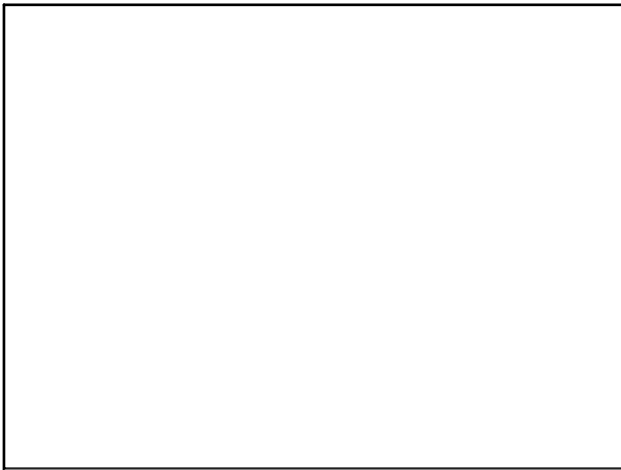
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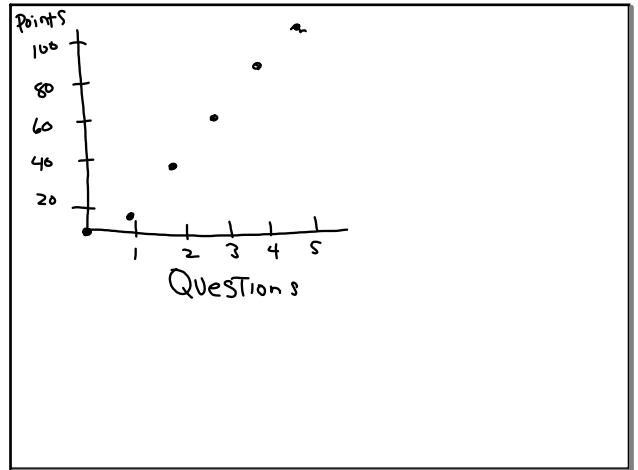
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Oct 31-8:30 AM



Oct 31-8:30 AM



Oct 31-8:30 AM

④ $D = \{-1, 0, 1\}$ ⑤ $D = \{-2, 0, 2\}$
 $R = \{2, 3, 4\}$ $R = \{3\}$

⑥

$D = \{-4 \leq x \leq 2\}$
 $R = \{0 \leq y \leq 4\}$

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⑦ To Find an equation

① Slope $\frac{y-y}{x-x}$
 $m = \frac{-5 - (-6)}{2 - 1} = 1$

$Y = 1X - 7$

X	1	2	3	4
Y	-6	-5	-4	-3

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8

x	1	2	3	4
y	-3	-6	-9	-12

① Slope = $\frac{-9 - (-6)}{3 - 2} = -3$

② $y = -3x$

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9 $8m = T \text{ page}$

Independent = minutes
Dependent = TOTAL pages

⑩ 5
⑪ 6

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$f(x) = 3x + 15$

x	1	2	3	4	5
y	18	21	24	27	30

← Domain
← Range

This is Discrete

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ARITHMETIC SEQUENCE

$a_n = a_1 + d(n-1)$
 a_n = the number in the sequence you want
 a_1 = 1st number in the sequence
 d - the common difference between each number
 n - number you want to get to

15, 22, 29, 36, 43, 50

What is the 70th number in this sequence?
 $15 + 7(70-1)$
 $15 + 7(69) = 498$

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4, 8, 12, 16

What is the 101st number in this sequence?

$a_{101} = a_1 + d(n-1)$
 $a_{101} = 4 + 4(101-1)$

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141, 144, 147

What is the 100th # in this sequence

$a_{100} = a_1 + d(n-1)$

$141 + 3(100-1)$

$a_{100} = 438$

299
x 3
297
141
438

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