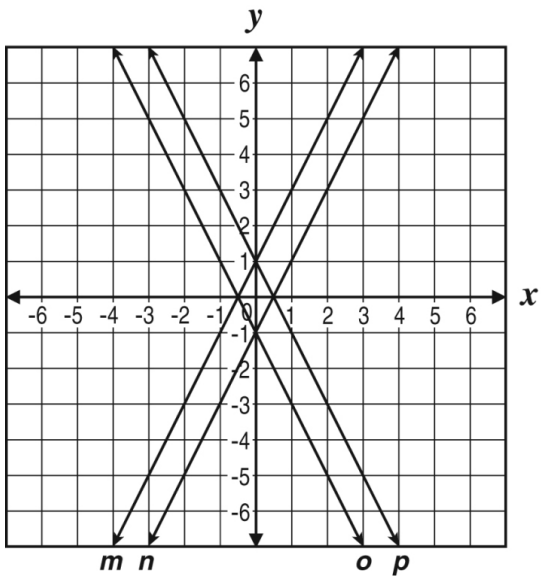
Name:
Class:
Date:

Question #1

Lines *m*, *n*, *o*, and *p* are graphed on the coordinate grid below. A table of values for one of the lines, represented by the equation $y = 2x + 1$, is also provided.



x	y
0	1
1	3
–1	–1
2	5
–2	–3

Which line BEST represents the equation $y = 2x + 1$?

A) *m*

B) *n*

C) *o*

D) *p*

Question #2

A machine can make 54 paper bags in 2 minutes. If the machine makes the bags at a constant rate, which table below shows the number of bags it can make over a 5-minute period?

A)

Number ofMinutes	Numberof Bags
1	27
2	54
3	81
4	108
5	135

B)

Number ofMinutes	Numberof Bags
1	54
2	81
3	108
4	135
5	162

C)

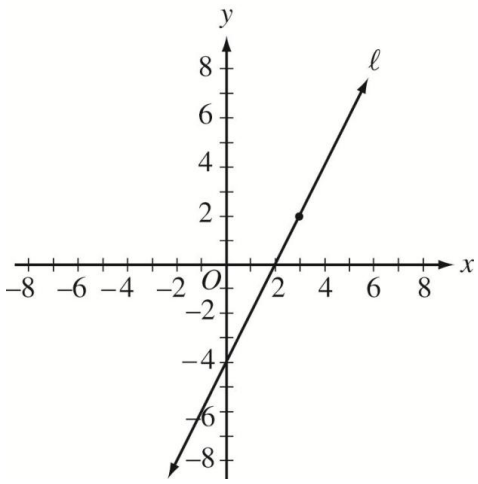
Number ofMinutes	Numberof Bags
1	27
2	54
3	108
4	135
5	162

D)

Number ofMinutes	Numberof Bags
1	54
2	108
3	216
4	432
5	864

Question #3

The graph of line ℓ is shown below. The slope of line k (not shown) is three times the slope of line ℓ, and line k also contains the point (3, 2).



Which of the following tables contains only points that are on line k?

A)

x	–1	0	1
y	–10	–4	2

B)

x	–1	0	1
y	–14	–12	–10

C)

x	–1	0	1
y	–15	–9	–3

D)

x	–1	0	1
y	–22	–16	–10

Question #4

Which equation represents the relationship between *x* and *y* in the table?

x	*y*
1	2
2	5
3	10
4	17

A) $y = x + 1$

B) $y = 2x + 1$

C) $y = x^2 + 1$

D) $y = (x + 1)^2 - 2$

Question #5

The function *f*(*x*) is shown in the box.

$f(x) = 4x - 2$

Several values of the function *g*(*x*) for different values of *x* are listed in the table.

x	*g*(*x*)
-2	11
-1	7
1	-1
2	-5

Which statement regarding these 2 functions is correct?

A The sum of the slopes of *f*(*x*) and *g*(*x*) is 0.

B The sum of the *y*-intercepts of *f*(*x*) and *g*(*x*) is 0.

C The difference between the slopes of *f*(*x*) and *g*(*x*) is 0.

D The difference between the *y* -intercepts of *f*(*x*) and *g*(*x*) is 0.

Question #6

Three different linear functions are represented in the table.

Function A	Function B	Function C
$y = 2x + 4$	a line through the points (-2, -4) and (4, 14)	

x	y
-2	-2
0	3
2	8
4	13

Which is the correct order of the functions from *least* to *greatest* *y*-intercept?

A Function A, Function B, Function C

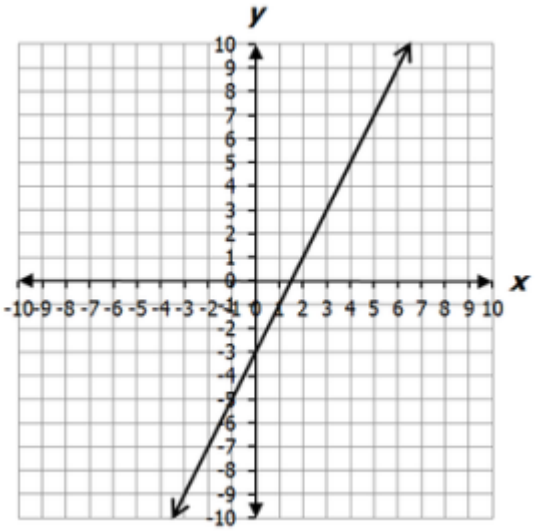
B Function C, Function B, Function A

C Function B, Function A, Function C

D Function B, Function C, Function A

Question #7

Patricia and her friend Suki are studying for math class. They want to compare 2 functions. The first, $f(x)$, is linear with an *x* -intercept of 0.5 and a *y* -intercept of -6. The second, $g(x)$, is shown in the graph.



Which function has the larger slope, and what is that slope?

A $f(x)$; 2

B $f(x)$; 12

C $g(x)$; 2

D $g(x)$; 12

Question #8

Given the line containing the points (4, -5) and (-2, 7) and the equations y = -2x + 9 and 10x + 5y = 6, how are the graphs of the three related?

A different slopes; same y-intercepts

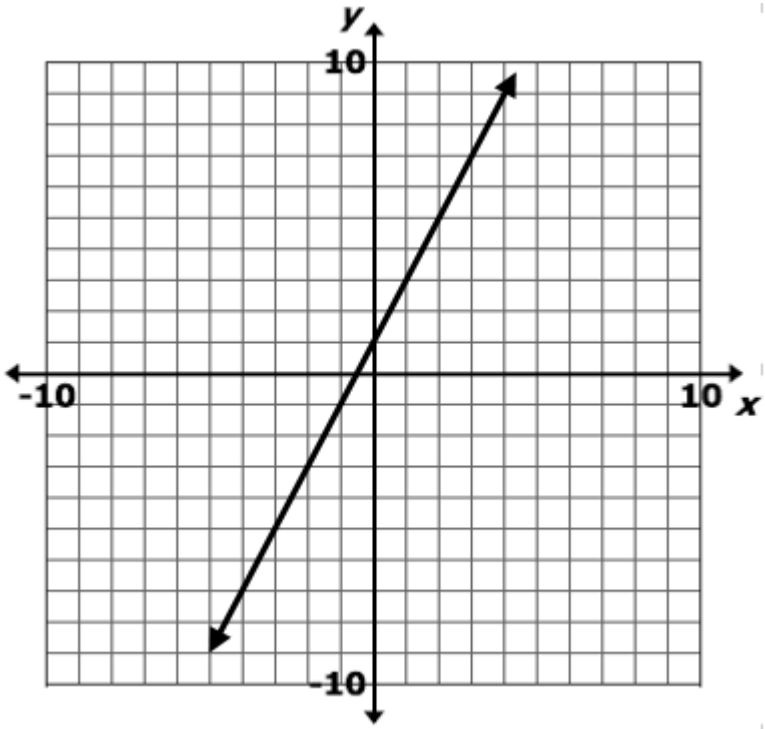
B same slope; different y-intercepts

C different slopes; different y-intercepts

D same slope; same y-intercepts

Question #9

Consider the line graphed on the coordinate plane.



Which line has a greater slope than the graphed line?

A $y = \frac{10}{3}x - 2$

B $y = \frac{5}{4}x - 4$

C $y = \frac{2}{3}x + 1$

D $y = \frac{1}{2}x + 2$

Question #10

Consider a function $f(x)$ as defined in the table.

x	$f(x)$
2	-4
4	4
5	8
7	16

Another function $g(x)$ is defined such that its rate of change is 2 times the rate of change of $f(x)$, and the y-intercept is half the y-intercept of $f(x)$.

Which function *correctly* represents $g(x)$?

A $g(x) = 4x - 6$

B $g(x) = 8x - 6$

C $g(x) = 4x - 12$

D $g(x) = 8x - 12$