Multiple Representations AAC Unit Test Review: Part II

1) Which table shows the correct representation given the equation below?

$$y = -3\frac{1}{8}x + 2$$

x	y
1	$-1\frac{1}{8}$
2	$4\frac{1}{4}$
4	$10\frac{1}{2}$
6	$16\frac{3}{4}$

x	y
1	$-1\frac{1}{8}$
2	$-4\frac{1}{4}$
4	$-10\frac{1}{2}$
6	$-16\frac{3}{4}$

x	y
1	$5\frac{1}{8}$
2	$4\frac{1}{4}$
4	$10\frac{1}{2}$
6	$16\frac{3}{4}$

x	y
1	$-5\frac{1}{8}$
2	$-8\frac{1}{4}$
4	$-14\frac{1}{2}$
6	$-20\frac{3}{4}$

2) The temperature in Verkhoyansk, Russia was $-52°F$ at 7:00 AM yesterday. By 11:30 AM, the temperature had risen to $-48°F$. Assuming that the hourly change in temperature was constant, write an equation to represent the relationship between the temperature y, and time, **in hours** x.

What is the rate of change, m? _____ Equation: _____

3) Write an equation to represent the data in the table.

x	$\frac{1}{2}$	$\frac{8}{9}$	$\frac{1}{3}$
y	$\frac{3}{8}$	$\frac{2}{3}$	$\frac{1}{4}$

Is the data proportional? _____

If so, what is constant of proportionality, k? _____

Equation: _____

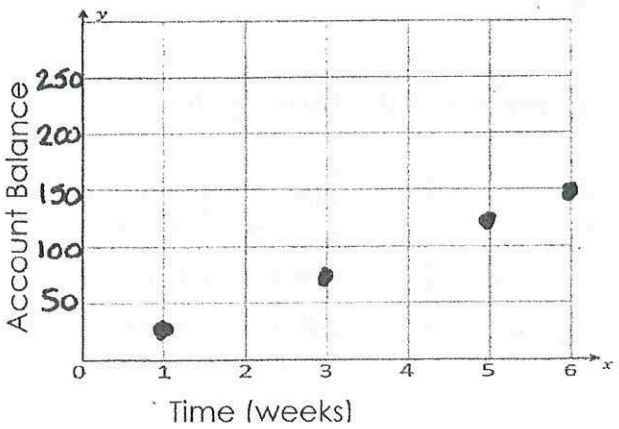
4) Ria graphed the equation $2x - 4$. Which point would the graph **not** pass through?

a) $(0, -4)$ b) $(-5, -14)$ c) $(-2, 0)$ d) $(-3, -10)$

5) What is the constant of proportionality, k?

Solution: _____

When naming the constant of proportionality, should you write an equation or include a variable? _____



6) The data in the table shows a linear relationship. If $y = 1\frac{1}{2}$, then what is $3x$?

x		y
$\frac{3}{4}$		$\frac{1}{12}$
$\frac{1}{2}$		$-\frac{1}{6}$

Solution: _____

7) Jasmine is having her birthday party at Sky zone trampoline park. The trampoline park charges $7.50 per person plus a non-refundable room fee of $50.

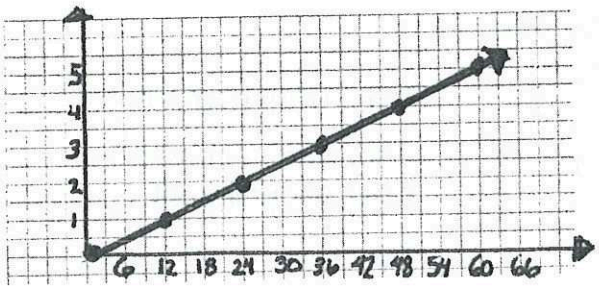
Independent variable: _____ Dependent variable: _____

Which ordered pair would appear on a graph that shows the total cost of the party?

a) $(7, 100.5)$ b) $(110, 8)$ c) $(5, 87.5)$ d) $(8, 60)$

8) The representations below show the relationship between the amount of time and the distance that two runners can travel.

Runner 1:



Runner 2:

Time (min)	Distance (mi)
27	3
40.5	4.5
54	6
67.5	7.5

Find the constant of proportionality for both runners. Which runner is faster? _____
How much faster is that runner in miles per minute? _____

9) Write the equation represented by the table.

x	-8	-1	0	5
y	1	$\frac{11}{4}$	3	$\frac{17}{4}$

Equation: _____

10) The relationship is linear because the rate of change is constant. Which equation represents the relationships in the table.

x	-4	0	4	8
y	26	6	-14	-34

a) $y = 5x - 6$
b) $y = -5x + 6$
c) $y = \frac{1}{5}x + 6$
d) $y = -\frac{1}{5}x - 6$