

Lecture 6
Functions P.1

Level: 1

1. Consider the following set of ordered pairs:

$\{(1,2),(2,4),(3,6),(4,8)\}$

Is this a function?

A Yes

B No

2. Consider the following set of ordered pairs:

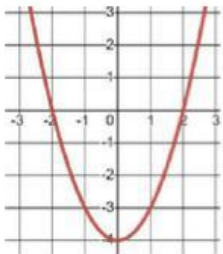
$\{(1,3),(2,4),(1,5),(3,6)\}$

Is this a function?

A Yes

B No

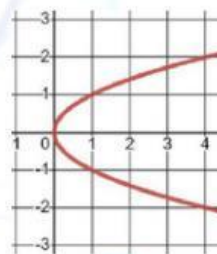
Determine if the following graphs represent functions.



A Yes

B No

4. Determine if the following graphs represent functions.



A Yes

B No

5. Find the slope of the line that contains $(3, 8)$, $(6, -1)$

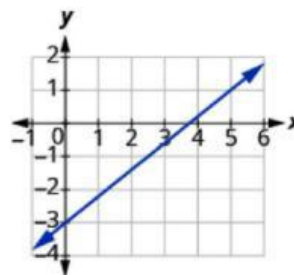
A 3

C -3

B 4

D -4

6. Use the graph to find the slope.



A $-4/5$

B $-3/5$

C $4/5$

D $3/5$

7. Write the equation of the line with the slope -2 and y -intercept 4

A $y = -2x + 4$

B $y = 2x + 4$

C $y = 4x + 2$

D $y = 4x - 2$

8. Write the equation of the line with the slope -5 and containing $(3, 4)$ in standard form

A $y + 5x = 19$

B $y - 4 = -5(x-3)$

C $y - 3 = -5(x-4)$

D $y - 5x = 19$

EDUWAVES

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9. Determine which of the following functions is a linear function. choose more than one option if you have
10. Write the equation of a line in point-slope form that passes through the point (2,3) and has a slope of 4.

A $f(x) = 2x + 3$

C $f(x) = \frac{1}{x}$

B $f(x) = x^2 + 5$

D $f(x) = 3x - 4$

A $(y-3) = 4(x-2)$

B $(y-2) = 4(x-3)$

C $(y+2) = 4(x+3)$

D $(y+2) = 3(x+4)$

11. During PE class, Lina recorded the exercise times (ET) in minutes and heart rates in beats per minute (BPM) of four of her classmates. Which table best represents a linear model of exercise and heart rate?

12. Which of the following functions is quadratic?

A $f(x) = 2x^3 - 4x^2 + 6x$

B $f(x) = 3x^2 + 5x - 7$

C $f(x) = 4(x-2)(x+3)$

D $f(x) = \frac{2}{x^2} + 5x^2$

13.

Evaluate the quadratic function $f(x) = 3x^2 - 2x + 4$ for $x = -1$.

A.

ET	BPM
0	60
1	65
2	70
3	75
4	80

B.

ET	BPM
0	60
1	70
2	83
3	88
4	90

C.

ET	BPM
0	58
1	65
2	70
3	75
4	79

D.

ET	BPM
0	62
1	65
2	66
3	73
4	75

A 3

B 9

C 7

D 5