

Paper Practice 4.2

Rate of Change and Slope

Find the rate of change of the function by using two points from the table.

1.

x	y
1	15
2	11
3	7
4	3

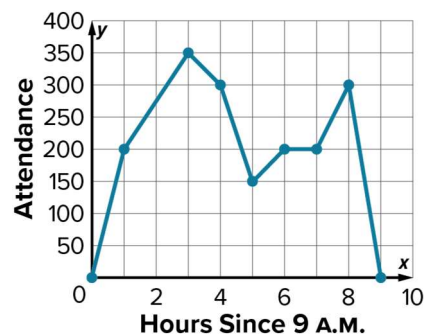
2.

x	y
2	5
4	8
6	11
8	14

3. **ZOO** The graph shows the number of visitors at the zoo during different hours of one day.

a. Find the rate of change in the number of visitors between 10 A.M. and 12 P.M. and describe its meaning in the context of the situation.

b. Find the rate of change in the number of visitors between 1 P.M. and 2 P.M. and describe its meaning in the context of the situation.



Determine whether the function is linear. If it is, state the rate of change.

4.

x	2	4	6	8	10
y	11	12	14	18	26

5.

x	-4	-2	0	2	4
y	-7	-2	3	8	13

Find the slope of the line that passes through each pair of points.

6. $(5, 7), (1, -3)$

7. $(4, -4), (6, -4)$

8. $(-1, -4), (3, -5)$

12. $(2, 11), (6, -3)$

13. $(4, -2), (8, -2)$

14. $(2, -7), (2, 7)$

15. $(-5, 5), (0, 2)$

16. $(1, -8), (5, -3)$

17. $(3, 1), (9, 1)$

Find the value of r so the line that passes through each pair of points has the given slope.

18. $(r, 7), (3, 4), m = -\frac{3}{5}$

19. $(1, r), (7, 5), m = \frac{2}{3}$

20. **CONSTRUCTION** A construction company is building a roof on a house. The horizontal distance from the edge of the roof to the peak is 25 feet. The vertical distance from the edge of the roof to the peak is 6.25 feet. What is the slope of the roof?

