Algebra 1
Quiz 3A Review

Determine if the table represents a linear or nonlinear function. If nonlinear, explain why.

1.

x	−2	−1	0	1	2
y	2	0.5	0	0.5	2

2.

x	−3	−2	−1	0	1
y	−7	−5	−3	−1	1

3.

x	0	1	2	3	4
$f(x)$	3	4	5	6	7

4.

x	0	1	2	3	4
$f(x)$	0	1	4	9	16

Determine if the function is linear or nonlinear. If it is nonlinear, explain why.

5. $y + 2x = 3$

6. $y = 5x^2 - 3$

7. $xy = 5$

8. $2(x - 3) = 3y$

9. $\sqrt{y} - 4 = x$

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

Given that C(t) represents total cost after t minutes, explain the meaning of each statement.

11. $C(15) = \$32$

12. $C(5) = \$14$

13. $C(4) < \$10$

14. $C(7) > C(5)$

List the domain and range for each relation. Determine if the relation is a function. If not a function, please explain why it is not a function.

15.

Input, x	-1	0	1	2	3
Output, y	0	1	4	4	8

Domain: _____

Range: _____

Function? Yes or No

If No, Why?

16. (2, -3), (4, 5), (-2, -3), (4, 1)

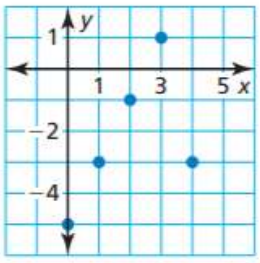
Domain: _____

Range: _____

Function? Yes or No

If No, Why?

17.



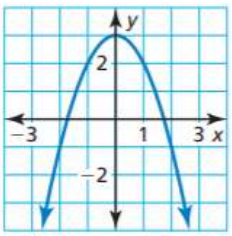
Domain: _____

Range: _____

Function? Yes or No

If No, Why?

18.



Domain: _____

Range: _____

Function? Yes or No

If No, Why?

Evaluate given that $f(x) = 3x + 5$.

19. $f(5)$

20. $f(-4)$

21. $f(2)$