

Solve for the stated variable. State restrictions on the variables.

1. Solve for T . $\frac{C+AT}{M} - 7 = W$

2. Solve for K . $E(K+5R) = \frac{C}{N}$

3. Solve for R . $RW + CR = MK$

4. Solve for Q . $\frac{7+C}{Q} - E = X$

Solve each inequality. Write All Real Numbers or No Solution if applicable.

5. $4x - 7(x+2) < 16$

6. $6k - 9 + 2k \geq 8k + 7$

7. $4(y-6) + y \leq 3(2y+5) - y$

Solve each compound inequality. State the answer as a single inequality, if possible. Write All Real Numbers or No Solution if applicable.

8. $2R - 1 < -11$ AND $R \geq 6$

9. $3E + 9 > -3$ OR $-2E + 1 > 5$

10. $7W < 14$ AND $W > -3$

11. $A < 12$ OR $A - 6 < -3$

12. $K \geq 7$ AND $-3K \leq 12$

13. $2E - 1 \geq 13$ OR $E \leq 1$

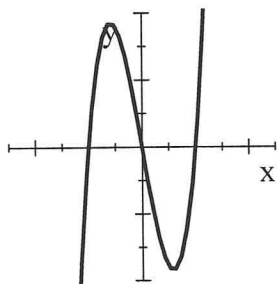
For 14 to 17, tell if each relation a function?

14.

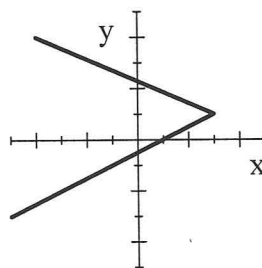
X	Y
3	7
-4	-1
2	5
8	-1

15. $(-9, 8), (4, 7), (1, -5), (-9, 3)$

16.

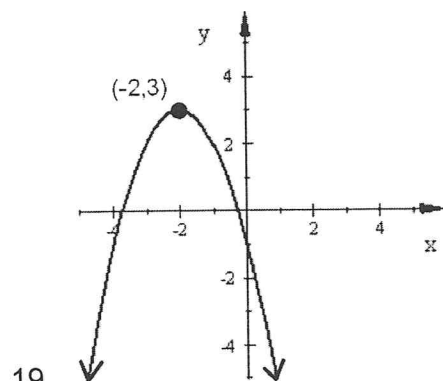


17.



For 18 and 19, state the domain and range of each relation:

18. $(2, 11), (4, 8), (2, 3), (-5, 8)$



20. Given $f(x) = 5x^2 - x$ Find $f(-3)$

For 21 to 24 use the following functions:

$$f(x) = 2x - 1$$

$$g(x) = x^2 + 2x$$

$$h(x) = x + 5$$

$$k(x) = 4x$$

21. Find $f(g(-3))$

22. Find $(k \circ f)(10)$

23. Find $g(k(x))$

24. Find $(f \circ h)(x)$

Solve each.

25. $|5x - 6| = 9$

26. $|2x + 9| > 13$

27. $|4x - 3| \leq 10$

28. Write the equation of the line that passes through this pair of points in both Point-Slope and Slope-Intercept Forms: $(2, -2)$ & $(-3, -17)$

Algebra 2 Quiz #1 Review

Sec 1-3, 1-4, 2-1, 7-6

ANSWERS

1. $T = \frac{M(W+7) - C}{A}$ $A, M \neq 0$ 2. $K = \frac{C}{NE} - 5R$ or $K = \frac{\frac{C}{N} - 5ER}{E}$ $N, E \neq 0$

3. $R = \frac{MK}{W+C}$ $W+C \neq 0$ 4. $\frac{7+C}{X+E}$ $X+E \neq 0, Q \neq 0$

5. $x > -10$ 6. No Sol 7. All Real Numbers 8. No Sol

9. All Real Numbers

10. $-3 < w < 2$

11. $A < 12$

12. $K \geq 7$

13. $E \leq 1$ or $E \geq 7$

14. Yes, it is a function

15. No, it's not a function

16. Yes it is a function

17. No, it's not a function

18. Domain : $\{-5, 2, 4\}$

Range : $\{3, 8, 11\}$

19. Domain : All Real Numbers

Range : $y \leq 3$

20. $f(-3) = 48$

21. $f(g(3)) = 5$

22. $(k \circ f)(10) = k(f(10)) = 76$

23. $g(k(x)) = 16x^2 + 8x$

24. $(f \circ h)(x) = f(h(x)) = 2x + 9$

25. $x = -\frac{3}{5}, 3$ 26. $x < -11$ or $x > 2$ 27. $-\frac{7}{4} \leq x \leq \frac{13}{4}$

28. Point-Slope Form: $y + 2 = 3(x - 2)$ or $y + 17 = 3(x + 3)$

Slope-intercept Form: $y = 3x - 8$