

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

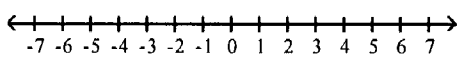
Find the indicated intersection or union.

1) $\{4, 8, 12, 16\} \cap \{3, 6, 9\}$ 1) _____

Graph the compound inequality.

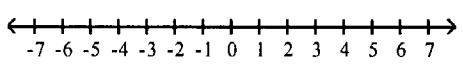
2) $x > 0$ and $x \leq 4$ 2) _____

3) $x \geq 2$ and $x \geq -3$ 3) _____

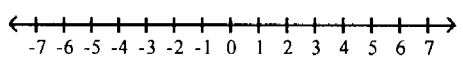


Solve the inequality. Give the solution set in both interval and graph forms.

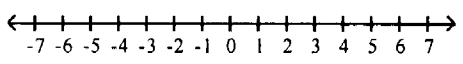
4) $-15 < -3x \leq -3$ 4) _____



5) $-8 < -2a + 4 \leq 0$ 5) _____

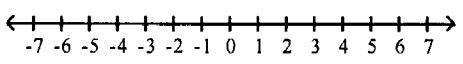


6) $7x + 4 < 32$ and $6 - 5x > -19$ 6) _____

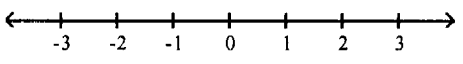


Solve the inequality. Give the solution set in both set-builder notation and graph form.

7) $9x + 8 \geq -1$ and $5x + 2 \geq 22$ 7) _____



8) $4 < 1 - 4x \leq 6$ 8) _____



Graph the inequality.

9) $x \leq 3$ or $x \geq 5$ 9) _____



For the compound inequality, give the solution set in both interval and graph forms.

10) $-4x + 1 \geq 9$ or $5x + 3 \geq -17$

10) _____



Solve the problem.

11) Students in a math class receive a B if the average of their four test scores is between 75 and 85. Raul scored 71, 82, and 88 on the first three tests. Within what range must his score on the fourth test lie if he is to get a B?

11) _____

Solve the equation.

12) $|4 - 3x| = 7$

12) _____

13) $|n - 1| = |7 - n|$

13) _____

14) $|b + 6| = -5$

14) _____

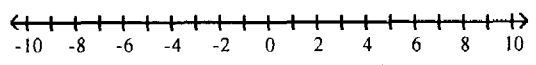
15) $|4s - 7| = |7 - 4s|$

15) _____

Solve and graph. Write the solution in interval notation.

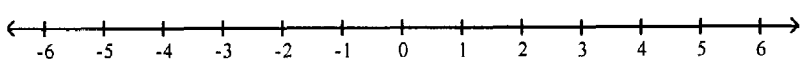
16) $|-2x - 1| < 8$

16) _____



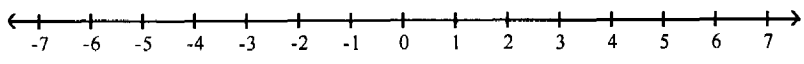
17) $|5y - 5| - 3 < -5$

17) _____



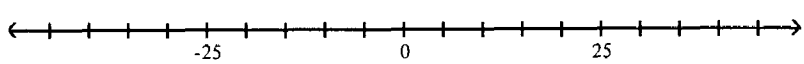
18) $|8 - 3x| \leq 6$

18) _____



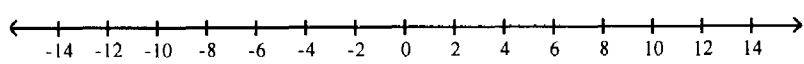
19) $|b - 3| - 5 \geq 6$

19) _____



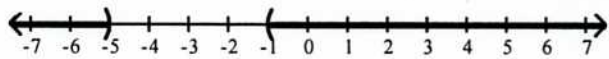
20) $\left| \frac{5 - 2x}{7} \right| \geq 2$

20) _____



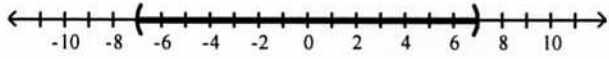
Write an absolute value inequality that has the solution set depicted in the graph.

21)



21) _____

22)



22) _____

Identify the domain and range of the relation.

23)

Name	Test Score
Bob	86
Susan	83
Jim	76
Bruce	96

23) _____

Determine the domain and range of the relation.

24) $\{(-5, -2), (9, -4), (5, -5), (5, 2)\}$

24) _____

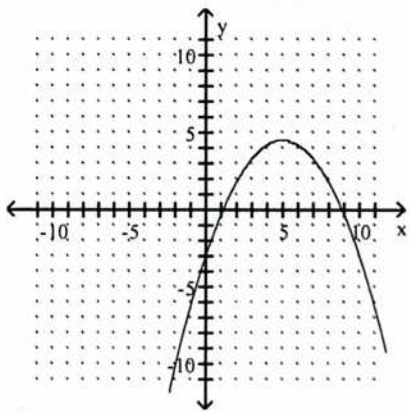
Determine whether the relation is a function.

25) $\{(-6, 6), (-2, -5), (1, 9), (1, -6)\}$

25) _____

Identify the domain and range of the relation.

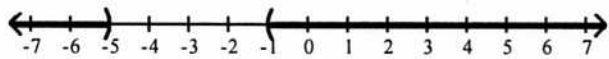
26)



26) _____

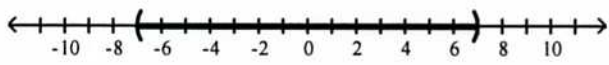
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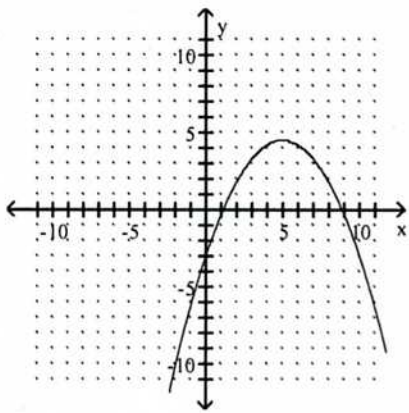
Determine whether the relation is a function.

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Identify the domain and range of the relation.

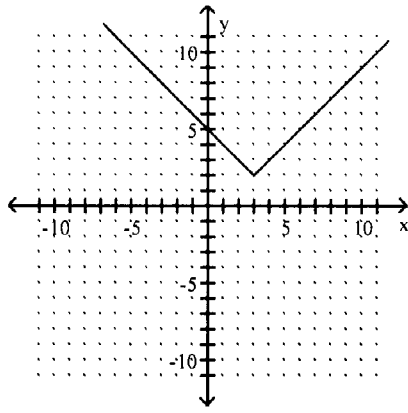
26)



26) _____

CH8

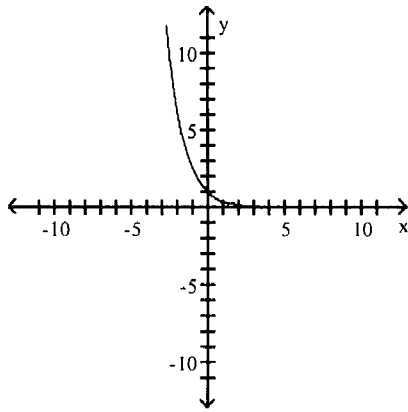
27)



27) _____

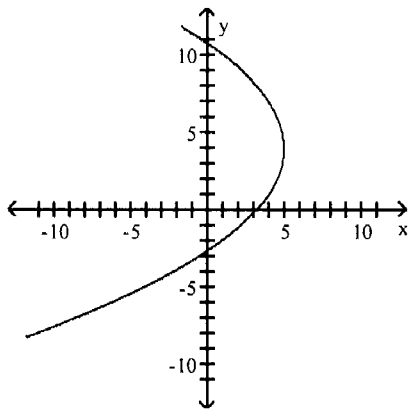
Determine whether the graph is the graph of a function.

28)



28) _____

29)



29) _____

Evaluate the function.

30) Given $f(x) = x^3 + 2x^2 - 6x - 6$, find $f(-4)$.

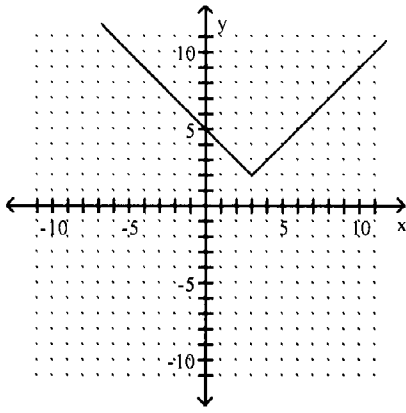
30) _____

31) Given $f(x) = 5x^2 - 3x - 9$, find $f(-2)$.

31) _____

CH8

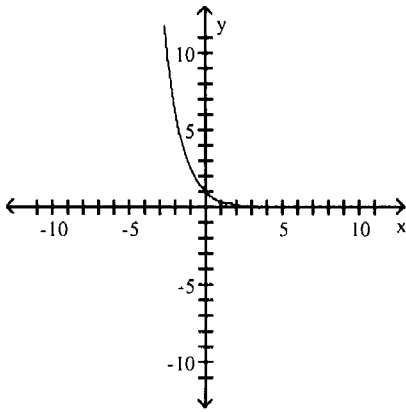
27)



27) _____

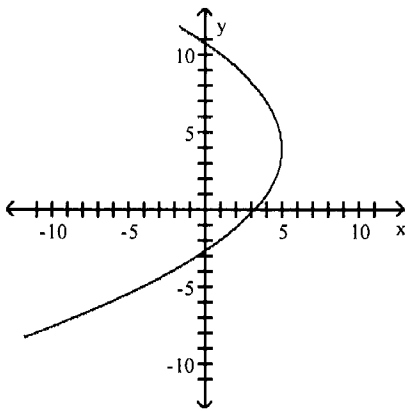
Determine whether the graph is the graph of a function.

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29)



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Evaluate the function.

30) Given $f(x) = x^3 + 2x^2 - 6x - 6$, find $f(-4)$.

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31) Given $f(x) = 5x^2 - 3x - 9$, find $f(-2)$.

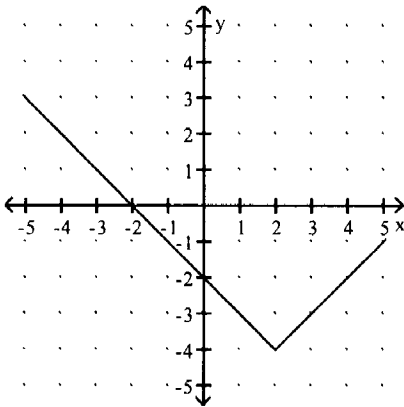
31) _____

CMS

Use the graph to determine the value of the function.

32) $f(3)$

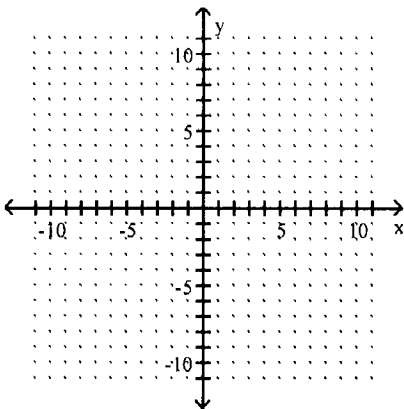
32) _



Graph.

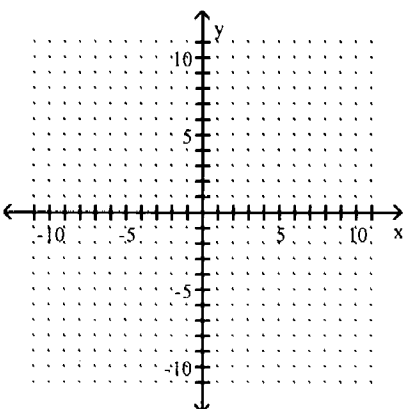
33) $f(x) = -\frac{1}{2}x + 3$

33) _



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

34) _



Find $f + g$ or $f - g$ as indicated.

35) $f(x) = 4x^2 + 15x$, $g(x) = -11x^2 + 4x + 3$

35) _

Find $f - g$.

CH8

36) $f(x) = 9x^2 + 5x - 8$, $g(x) = 2x^2 + 6x + 7$

Find $f + g$.

36) _____

Find $f \cdot g$.

37) $f(x) = x^2 - x - 8$, $g(x) = x - 1$

37) _____

38) $f(x) = 5x^2 + 2x + 4$, $g(x) = x^2 + 3x - 4$

38) _____

Find f / g .

39) $f(x) = -8x^2 + 12x$, $g(x) = -2x$

39) _____

40) $f(x) = x^2 + 9x + 5$, $g(x) = x + 7$

40) _____

Find the indicated sum, difference, product, or quotient and then evaluate.

41) $f(x) = x - 6$, $g(x) = 3x^2 + 11x + 4$

Find $(f \cdot g)(-3)$.

41) _____