

Chapter 1 Review ALGEBRA

NAME _____ Period _____

Evaluate the expression for the given value of the variable.

1. $x + 7$ when $x = 3$ 1. _____
2. $2 \cdot 3y$ when $y = 5$ 2. _____
3. $\frac{60}{w}$ when $w = 10$ 3. _____

Solve the word problem.

4. You deposit \$600 in a savings account that pays an annual interest rate of 1.3%. How much simple interest would you earn in ten years? (SI = PRT) 4. _____
5. Find the average speed: 250 miles in 5 hours. (D = RT) 5. _____
6. Find the total time: 600 miles traveled at 40 miles per hour. (D = RT) 6. _____

Write the expression in exponential form.

7. $6 \cdot 6 \cdot 6 \cdot 6 \cdot 6$ 7. _____
8. $2 \cdot 2 \cdot 2 \cdot 2 \cdot x \cdot x \cdot y \cdot y \cdot y$ 8. _____

Evaluate the power.

9. 10^{10} 9. _____

Evaluate the expression for the given variable.

10. $(7x)^2$ if $x = 2$ 10. _____
11. $(a + b)^2$ if $a = 6$ and $b = 2$ 11. _____

12. $5 + 4a^2$ if $a = 3$

12. _____

13. $x^3 + 3$ if $x = -2$

13. _____

14. $(6y - 5)^3$ if $y = 2$

14. _____

15. $x^3 + y^2$ if $x = -4$ and $y = 3$

15. _____

Evaluate the expression without calculators.

16. $28 \div 7 \cdot 2$

16. _____

17. $8 + 4^3 \div 8 - 3$

17. _____

18. $9 \div \frac{2}{3}(11 - 2)^2$

18. _____

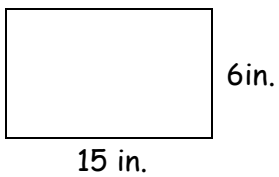
19. $4 \cdot 9 - 30 \div 6$

19. _____

Find the area of the rectangle.

20.

20. _____



Decide which number is a solution for the equation or inequality.

21. $3x + 1 \geq 10$

- a. 3
- b. 2
- c. 1
- d. 0

22. $2x - 1 < 3$

- a. 1
- b. 2
- c. 3
- d. 4

23. $5 + m \div 2 = 15$

- a. 20
- b. 24
- c. 30
- d. 32

21. _____

22. _____

23. _____

Write the verbal phrase as an equation or inequality.

24. *Four less than a number is ten.*

24. _____

25. *The quotient of a number and fifteen is less than two.*

25. _____

26. *Ten less than a number is greater than five.*

26. _____

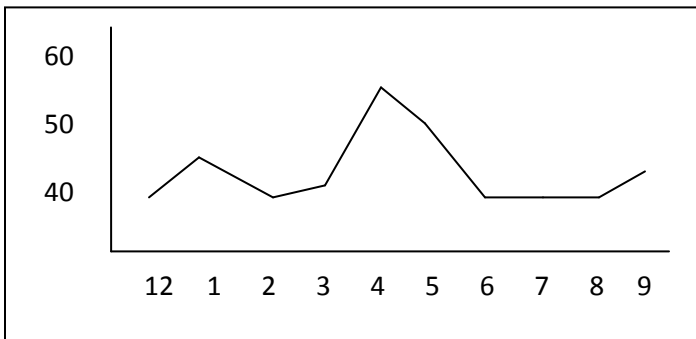
27. *The sum of five and seven times a number is sixty – five.*

27. _____

28. *Six is the difference of a number and another number.*

28. _____

Use this graph for questions 29-31. Shows temperature over a nine hour period.



29. For how many hours did the temperature stay the same?

29. _____

30. What is the minimum temperature?

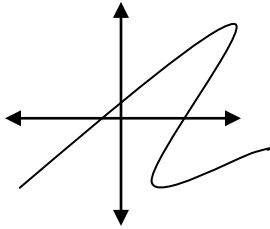
30. _____

31. What temperature was it at the fourth hour?

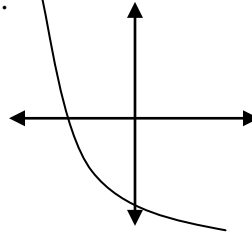
31. _____

State whether or not the graph shows a function.

32.



33.



32. _____

33. _____

State whether or not the input-output table shows a function.

34.

I	O
2	2
4	-2
6	2
8	-2

35.

I	O
-3	5
-3	-5
0	4
3	-4

36.

I	O
10	5
11	5
12	5
13	5

34. _____

35. _____

36. _____

What is the domain of the function?

37.

I	O
3	6
4	7
5	-10

What is the range of the function?

38.

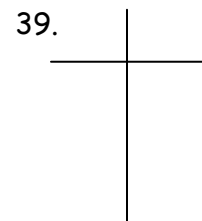
I	O
0	5
-5	4
-10	3

37. _____

38. _____

Make an input-output table for the function. Let $x = 1, 2, 3, 4$.

39. $y = 5x + 2$



40. $f(x) = 15 - 3x$

