

Chapter 2 Review

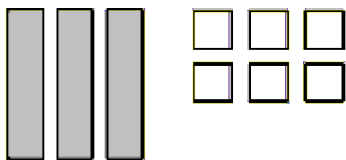
Multiple Choice

Identify the choice that best completes the statement or answers the question.

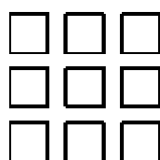
Write the next two terms in the pattern.

- _____ 1. 8, 14, 20, 26, ...
 a. 33, 40 b. 36, 42 c. 31, 37 d. 32, 38
- _____ 2. Jeremy has 192 marbles. He gives half to Marsha. Then he gives half of what he has left to Sam. He shares in the same way with two more friends. Write the terms that shows the number of marbles Jeremy has.
 a. 192, 95, 48, 24, 12 c. 192, 96, 22, 24, 11
 b. 192, 96, 48, 24, 12 d. 192, 96, 46, 22, 12
- _____ 3. Identify the algebra tiles that model $3x + 6$

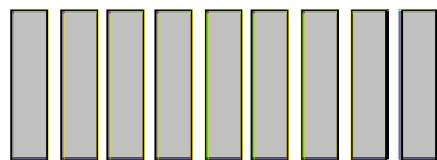
a.



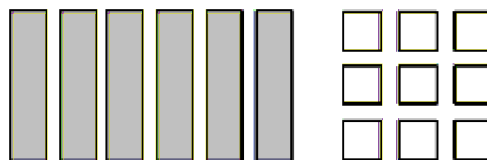
c.



b.



d.



Evaluate the expression.

- _____ 4. $46 - 5m$ for $m = 6$
 a. 51 b. 76 c. 41 d. 16
- _____ 5. $4(x - 7)$ for $x = 9$
 a. -28 b. 8 c. 64 d. 2

- _____ 6. A mail-order supplier of small electrical parts charges a shipping fee of \$7, plus \$2 for each pushbutton light switch ordered. If x is the number of pushbutton switches ordered, then the expression for the total cost of an order is $2x + 7$. Which table shows the total cost for the given number of switches ordered?

a.

Number of Switches	Cost (in \$)
x	$2x + 7$
1	10
2	18
3	20

c.

Number of Switches	Cost (in \$)
x	$2x + 7$
1	2
2	4
3	6

b.

Number of Switches	Cost (in \$)
x	$2x + 7$
1	16
2	18
3	20

d.

Number of Switches	Cost (in \$)
x	$2x + 7$
1	9
2	11
3	13

Write an algebraic expression for the word phrase.

- _____ 7. z divided by 4
- a. $\frac{z}{4}$ b. $4z$ c. $z + 4$ d. $z - 4$
- _____ 8. 9 times the product of c and d
- a. $9(c + d)$ b. $9cd$ c. $9\left(\frac{c}{d}\right)$ d. $9(c - d)$

Write an expression to describe the relationship of the data in the table.

- _____ 9.

Time (t)	Cost (c)
1 day	\$39
3 days	\$117
6 days	\$234
9 days	\$351

- a. $39t$ b. $117t$ c. $40t$ d. $39 + t$
- _____ 10. During a canned food drive, Bob collected 6 times as many cans as Tom. If t represents the number of cans that Tom collected, which algebraic expression represents the number of cans that Bob collected?
- a. $7 + t$ b. $7t$ c. $6t$ d. $6 + t$

- _____ 11. Mike is 3 inches more than two times as tall as his younger brother Jake. If Jake is h inches tall, which expression describes Mike's height?
a. $2h + 3$ b. $2(h - 3)$ c. $2h - 3$ d. $2(h + 3)$
- _____ 12. Greg planted crocuses in his garden. Crocuses have bulbs which divide and reproduce underground. The first year, Greg's garden produced 5 bulbs, the second year it produced 10 bulbs, and the third year it produced 15 bulbs. If this pattern were to continue, how many bulbs would Greg expect in the seventh year?
a. 39 b. 35 c. 40 d. 45

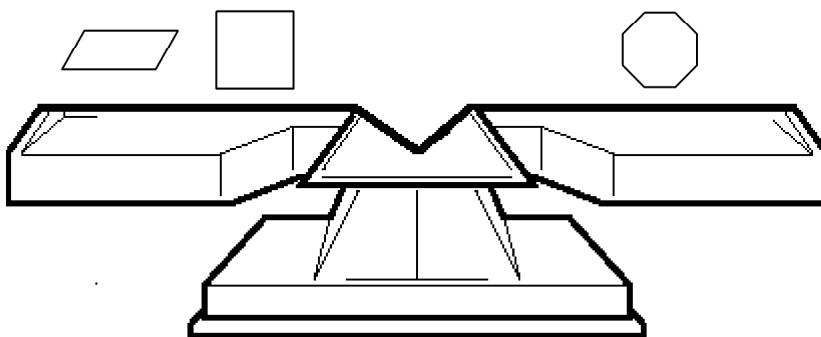
Solve the equation using mental math.

- _____ 13. $11 - n = 4$
a. 15 b. 44 c. 7 d. 6
- _____ 14. $w \div 4 = 4$
a. 16 b. 8 c. 18 d. 20

Solve the equation.

- _____ 15. $104 = v + 54$
a. 50 b. 150 c. 200 d. 100
- _____ 16. $4v = 40$
a. 44 b. 36 c. 5 d. 10
- _____ 17. $4 = w - 10$
a. 15 b. 14 c. 6 d. 40
- _____ 18. $x - 8.7 = 18.6$
a. 37.3 b. 32.3 c. 27.3 d. 9.9
- _____ 19. $5.4 = 0.9x$
a. 6.3 b. 6 c. 7.3 d. 12
- _____ 20. Write the expression $v \cdot v \cdot v \cdot v \cdot v \cdot v \cdot v$ using an exponent. Name the base and the exponent.
a. v^7 ; the base is v and the exponent is 7
b. v^7 ; the base is 7 and the exponent is v
c. 7^v ; the base is v and the exponent is 7
d. 7^v ; the base is 7 and the exponent is v
- _____ 21. Write 7,865 in expanded form using powers of 10.
a. $7 \times 10^3 + 8 \times 10^2 + 6 \times 10^1$
b. $7 \times 10^3 + 6 \times 10^1 + 5 \times 1$
c. $7 \times 10^3 + 6 \times 10^2 + 8 \times 10^1 + 5 \times 1$
d. $7 \times 10^3 + 8 \times 10^2 + 6 \times 10^1 + 5 \times 1$
- _____ 22. $12^2 - (4 + 9^2) - 13$
a. 208 b. 46 c. 25 d. 2
- _____ 23. Evaluate $(a^2 + b)^2$ for $a = 5$ and $b = 2$.
a. 49 b. 729 c. 81 d. 29
- _____ 24. A child's ticket for the zoo costs \$2 less than an adult's ticket. If a represents the cost of an adult's ticket, which expression represents the cost of a child's ticket?
a. $a - 2$ b. $2a$ c. $2 + a$ d. $2 - a$

___ 25. The equation under the balance is true.



$$\text{parallelogram} + \text{square} = \text{octagon}$$

Which equation must also be true?

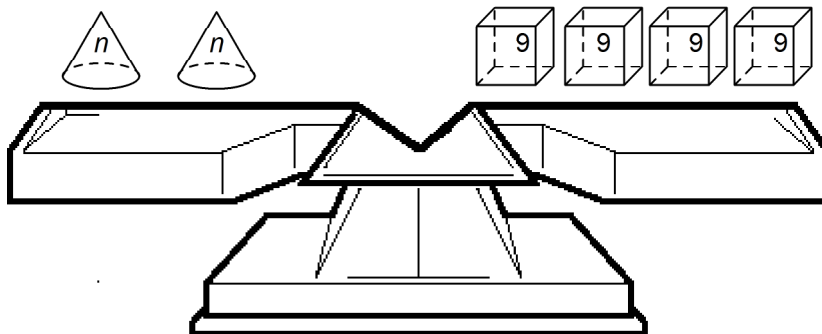
a. $\text{parallelogram} + \text{square} - \text{square} = \text{octagon} - \text{square}$

b. $\text{parallelogram} - \text{octagon} = \text{square} - \text{octagon}$

c. $\text{parallelogram} = \text{square} + \text{octagon}$

d. $\text{parallelogram} + \text{octagon} = \text{square}$

___ 26. What should you do to each side of the equation $2n = 4(9)$ to get the variable n alone?



a. divide by 2

b. multiply by 2

c. divide by 9

d. multiply by 9

Short Answer

27. Draw algebra tiles that model $5x + 3$.

Name: _____

ID: A

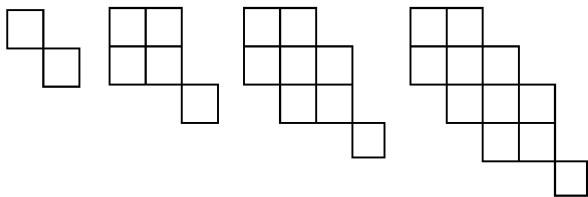
28. Write an algebraic expression for the word phrase.

the sum of 17 and twice a number n

Other

29. Tell whether the equation $x - 4 + 8 = x - 12$ is true or false. Explain.

30. Sketch the next two designs in the pattern below.



31. Is the equation $5x = 7x$ always, sometimes, or never true? Explain.