Name: _____ Date: _____

Fresh Math

Writing Expressions and Equations from Situations - Medium

Write an expression for each situation. Tell what the variable stands for.

1. the total cost of n tickets at $8.50 each plus a $3 service fee
2. a phone bill of $20 a month plus $0.05 per text, for t texts
3. the total cost of n tickets at $12 each plus a $3 service fee
4. the price of a jacket that costs p dollars after a 25% discount
5. a phone bill of $25 a month plus $0.10 per text, for t texts
6. a phone bill of $20 a month plus $0.25 per text, for t texts
7. each person's share when 6 friends split a bill of b dollars and add a $6 tip
8. the temperature after h hours if it starts at 10°F and drops 2°F each hour
9. the total cost of n tickets at $12 each plus a $4 service fee
10. the temperature after h hours if it starts at 10°F and drops 3°F each hour

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Writing Expressions and Equations from Situations - Medium

Write an equation for each situation. Then solve it.

11. A garden is 5 feet longer than it is wide. Its perimeter is 58 feet. How wide is it?

12. Concert tickets cost $7 each plus a $4 fee for the order. Jake paid $39. How many tickets did Jake buy?

13. Lena has $21 and saves $8 each week. After how many weeks will Lena have $69?

14. A gym charges a $25 sign-up fee plus $35 per month. Rosa has paid $375 in all. How many months has Rosa been a member?

15. Concert tickets cost $14 each plus a $6 fee for the order. Dev paid $132. How many tickets did Dev buy?

16. Jake has $64 and saves $12 each week. After how many weeks will Jake have $160?

17. A garden is 5 feet longer than it is wide. Its perimeter is 42 feet. How wide is it?

18. A garden is 2 feet longer than it is wide. Its perimeter is 48 feet. How wide is it?

19. A garden is 2 feet longer than it is wide. Its perimeter is 52 feet. How wide is it?

20. Lena has $27 and saves $5 each week. After how many weeks will Lena have $87?

Writing Expressions and Equations from Situations – Medium – Answer Key

1. the total cost of n tickets at $8.50 each plus a $3 service fee

   8.5n + 3 (n = number of tickets)

2. a phone bill of $20 a month plus $0.05 per text, for t texts

   20 + 0.05t (t = number of texts)

3. the total cost of n tickets at $12 each plus a $3 service fee

   12n + 3 (n = number of tickets)

4. the price of a jacket that costs p dollars after a 25% discount

   p - 0.25p = 0.75p (p = original price)

5. a phone bill of $25 a month plus $0.10 per text, for t texts

   25 + 0.1t (t = number of texts)

6. a phone bill of $20 a month plus $0.25 per text, for t texts

   20 + 0.25t (t = number of texts)

7. each person's share when 6 friends split a bill of b dollars and add a $6 tip

   (b + 6)/6 (b = the bill in dollars)

8. the temperature after h hours if it starts at 10°F and drops 2°F each hour

   10 - 2h (h = number of hours)

9. the total cost of n tickets at $12 each plus a $4 service fee

   12n + 4 (n = number of tickets)

10. the temperature after h hours if it starts at 10°F and drops 3°F each hour

    10 - 3h (h = number of hours)

Writing Expressions and Equations from Situations - Medium - Answer Key

11. A garden is 5 feet longer than it is wide. Its perimeter is 58 feet. How wide is it?
    $2w + 2(w + 5) = 58$; $w = 12$ feet

12. Concert tickets cost $7 each plus a $4 fee for the order. Jake paid $39. How many tickets did Jake buy?
    $7n + 4 = 39$; $n = 5$ tickets

13. Lena has $21 and saves $8 each week. After how many weeks will Lena have $69?
    $21 + 8w = 69$; $w = 6$ weeks

14. A gym charges a $25 sign-up fee plus $35 per month. Rosa has paid $375 in all. How many months has Rosa been a member?
    $25 + 35m = 375$; $m = 10$ months

15. Concert tickets cost $14 each plus a $6 fee for the order. Dev paid $132. How many tickets did Dev buy?
    $14n + 6 = 132$; $n = 9$ tickets

16. Jake has $64 and saves $12 each week. After how many weeks will Jake have $160?
    $64 + 12w = 160$; $w = 8$ weeks

17. A garden is 5 feet longer than it is wide. Its perimeter is 42 feet. How wide is it?
    $2w + 2(w + 5) = 42$; $w = 8$ feet

18. A garden is 2 feet longer than it is wide. Its perimeter is 48 feet. How wide is it?
    $2w + 2(w + 2) = 48$; $w = 11$ feet

19. A garden is 2 feet longer than it is wide. Its perimeter is 52 feet. How wide is it?
    $2w + 2(w + 2) = 52$; $w = 12$ feet

20. Lena has $27 and saves $5 each week. After how many weeks will Lena have $87?
    $27 + 5w = 87$; $w = 12$ weeks