

Name \_\_\_\_\_

Each of the 23 questions is worth 4 points plus 1 point for each of 8 homework problems for a total of 100

**Simplify the expression by combining like terms.**

1)  $-4x - 9x$

2)  $-7b - 4a + 5c - 5b + 9a$

**Multiply.**

3)  $-9(18y)$

4)  $-4(8a + 3)$

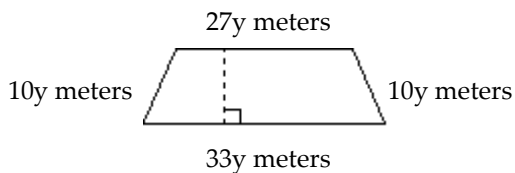
**Simplify the expression.**

5)  $3(x + 5) + 4$

6)  $8(7x + 4) - 6(x + 3)$

**Find the perimeter or area of the figure as indicated.**

7) Find the perimeter of the trapezoid.



**Solve the equation.**

8)  $x - 10 = -3 - 22$

9)  $6x = 7(x - 9) - 5$

10)  $4x - 9 = -21$

11)  $-4(x + 3) - 36 = -14 - 10$

**Write the phrase as a variable expression. Use  $x$  to represent "a number."**

12) Twelve subtracted from a number

13) Seven times the sum of a number and  $-42$

**Solve the equation.**

14)  $5 - r = 12$

15)  $17 + 3x - 11 = 10x - 14 - 5x$

16)  $85 - 43 = 7(x - 1)$

17)  $3(y + 8) = 4(y - 7)$

**Write the sentence as an equation.**

18) The sum of  $-43$  and  $50$  gives  $7$ .

**Write the sentence as an equation. Use  $x$  to represent "a number."**

19) Seven times the sum of a number and  $-42$  yields  $-84$ .

**Solve.**

20) The difference of a number and  $8$  is  $34$  less the number. Find the number.

21) The product of a number and  $-4$  gives ten times the sum of that number and  $28$ . Find the number.

22) During an intramural basketball game, Team A scored  $13$  fewer points than Team B. Together, both teams scored a total of  $151$  points. How many points did Team A score during the game?

**In retailing, the retail price  $P$  of an item can be computed using the equation  $P = C + M$ , where  $C$  is the wholesale cost of the item and  $M$  is the amount of markup.**

23) A retailer sells a game for  $\$32$ . If his wholesale cost for the game was  $\$23$ , what was his markup?