

**2-1****Practice****Writing Equations****Translate each sentence into an equation.**

- Fifty-three plus four times  $b$  is as much as 21.
- The sum of five times  $h$  and twice  $g$  is equal to 23.
- One fourth the sum of  $r$  and ten is identical to  $r$  minus 4.
- Three plus the sum of the squares of  $w$  and  $x$  is 32.

**Translate each sentence into a formula.**

- Degrees Kelvin  $K$  equals 273 plus degrees Celsius  $C$ .
- The total cost  $C$  of gas is the price  $p$  per gallon times the number of gallons  $g$ .
- The sum  $S$  of the measures of the angles of a polygon is equal to 180 times the difference of the number of sides  $n$  and 2.

**Translate each equation into a sentence.**

8.  $r - (4 + p) = \frac{1}{3}r$

9.  $\frac{3}{5}t + 2 = t$

10.  $9(y^2 + x) = 18$

11.  $2(m - n) = x + 7$

**Write a problem based on the given information.**

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| <p>12. <math>a</math> = cost of one adult's ticket to zoo<br/> <math>a - 4</math> = cost of one children's ticket to zoo<br/> <math>2a + 4(a - 4) = 38</math></p> | <p>13. <math>c</math> = regular cost of one airline ticket<br/> <math>0.20c</math> = amount of 20% promotional discount<br/> <math>3(c - 0.20c) = 330</math></p> |
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14. **GEOGRAPHY** About 15% of all federally-owned land in the 48 contiguous states of the United States is in Nevada. If  $F$  represents the area of federally-owned land in these states, and  $N$  represents the portion in Nevada, write an equation for this situation.

15. **FITNESS** Deanna and Pietra each go for walks around a lake a few times per week. Last week, Deanna walked 7 miles more than Pietra.

- If  $p$  represents the number of miles Pietra walked, write an equation that represents the total number of miles  $T$  the two girls walked.
- If Pietra walked 9 miles during the week, how many miles did Deanna walk?
- If Pietra walked 11 miles during the week, how many miles did the two girls walk together?