

9 Advance Mathematics

Lesson 2–4, Eg - 2

Name in English

Example 2

17. **OLYMPICS** In the 2010 Winter Olympic Games, the United States won 1 more than 4 times the number of gold medals France won. The United States won 7 more gold medals than France. Write and solve an equation to find the number of gold medals each country won.

Choose the correct option.

a) $7 + F = 4F + 1$

b) $7 + 4F = 7 + 1$

c) $F = 4F + 7$

$F =$

d) $4F = F + 7$

18. **REASONING** Diego's sister is twice his age minus 9 years. She is also as old as half the sum of the ages of Diego and both of his 12-year-old twin brothers. Write and solve an equation to find the ages of Diego and his sister.

Choose the correct answer

a) $2x - 9 = \frac{1}{2}(x + 12)$

b) $2x - 9 = \frac{1}{2}x + 24$

c) $x - 9 = \frac{1}{2}x + 12$

d) $2x - 9 = \frac{1}{2}(x + 24)$

$x =$

19. **NATURE** The table shows the current heights and average growth rates of two different species of trees. Write and solve an equation to find how long it will take for the two trees to be the same height.

Tree Species	Current Height	Annual growth
A	38 inches	4 inches
B	45.5 inches	2.5 inches

- a) $38 + 4x = 45.5$
b) $38 + 4x = 45.5 + 2.5x$
c) $38 - 4x = 45.5 - 2.5x$
d) $38x + 4 = 45.5x + 2.5$

Choose the correct option

$x =$

20. **WEIGHT** A dog weighs two pounds less than three times the weight of a cat. The dog also weighs twenty-two more pounds than the cat. Write and solve an equation to find the weights of the dog and the cat.

- a) $2 - 3C = 22 - C$
b) $2 - 3C = 22 + C$
c) $3C - 2 = 22 + C$
d) $3C - 2 = 22 - C$

Choose the correct option

$C =$