

Find each product.

1) $(a - 5)^2$

2) $(c - 2)(c + 2)$

3) $(7 - 4y)^2$

4) $(12p - 3)(12p + 3)$

5) $(2x - 9y)^2$

6) $(4d - 13)(4d + 13)$

7) $(8a^2 - 9b^3)(8a^2 + 9b^3)$

8) $\left(\frac{4}{5}x + 10\right)^2$

9) $(5x^4 - y)(5x^4 + y)$

10) $(3n - 10p)^2$

11) $(4y - 1)(5y - 6)$

12) $(3n - 5)(8n + 5)$

13) $(k + 8)(k + 8)$

14) $(x - 2)(3x^2 - 5x + 4)$

15) $(2k + 5)(2k^2 - 8k + 7)$

16) $(2n + 1)(2n - 1)(n + 5)$

17) $(p + 3)(p - 4)(p - 3)(p + 4)$

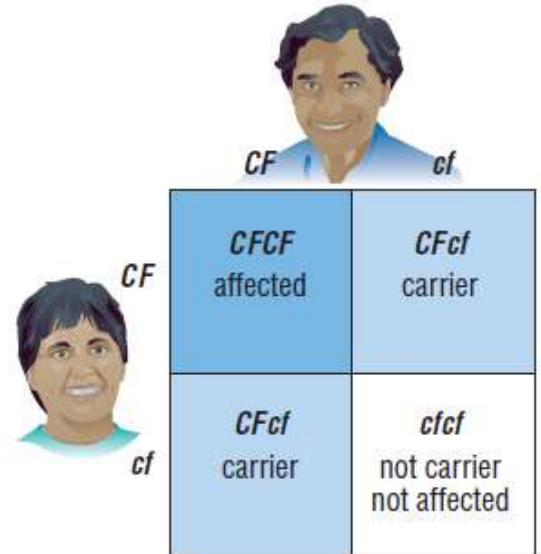
18) $(4 - 6h)^2$

Complete.

19) Cystic Fibrosis is inherited from parents only if both parents have the abnormal CF gene. Children of two parents with the CF gene will either be affected with the disease, a carrier but not affected, or not have the gene.

- a. Write an expression for the genetic makeup of children of two parents that are carriers of cystic fibrosis.

- b. What is the probability that a child will not be affected and not be a carrier?



Solve.

20) $6(x + 2) + 4 = 5(3x - 4)$

22) $p(p + 2) + 3p = p(p - 3)$

21) $-3(3a - 8) + 2a = 4(2a + 1)$

23) $y(y - 4) + 2y = y(y + 12) - 7$

Complete.

24) Mitchell likes to exercise regularly. He likes to warm up by walking two miles. Then he runs five miles. Finally, he cools down by walking for another mile. Identify the graph that best represents Mitchell's heart rate as a function of time.

