Applied Arithmetic Drill

You can check your answers in Part VIII: Answer Key to Drills.
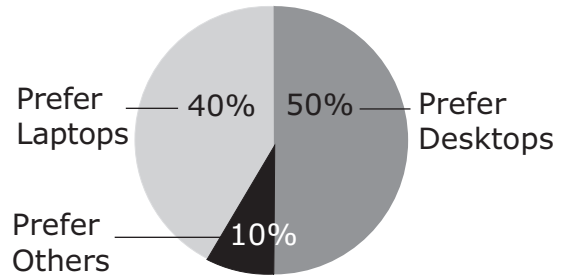
1. Darryl puts $5,000 into an insured bank account that pays simple interest of 8%. How much interest will he earn in 2 years?

    A. $2[0.08(5,000)]$

    B. $\dfrac{0.08(5,000)}{2}$

    C. $2[0.92(5,000)]$

    D. $2[1.08(5,000)]$

2. If Laverne walks steadily at a rate of 5 kilometers per hour, how long will it take her to walk 17.5 kilometers?

    A. $1\dfrac{3}{4}$ hours

    B. $3\dfrac{1}{2}$ hours

    C. 52 hours

    D. $87\dfrac{1}{2}$ hours

Computer Preferences

3. The figure above shows the results of a survey of a group of 200 professionals who were asked what type of computer they preferred. How many more people prefer desktop computers than prefer laptop computers?

    A. 5
    B. 10
    C. 15
    D. 20

4. There are a total of four tests in Sara's history class. She earned 94, 88, and 85 on the first three. What score does Sara need on the fourth test to pass the class with an average of 90 (the equivalent of an A)?

    A. 89
    B. 90
    C. 91
    D. 93

5. Which of the following is equal to $5^2 - \sqrt{9}$?

   A. 2^{11}

   B. $3^2 + \sqrt{25}$

   C. $2(2^3) + 6$

   D. $2^3 + 3^2$

6. Which of the following is the closest approximation of $\sqrt{10}$?

   A. 2
   B. 3
   C. 5
   D. 100

7. Michael calls a taxi to pick him up at his house. He knows that the taxi company has 1 limousine, 2 sedans, 3 vans, and 1 compact. What is the probability that he will ride in a sedan?

8. A set contains the following five numbers: 12, 4, 8, 16, 23. What is the median of the set?

9. Sheila works in a factory for $14.50 per hour for any hours up to 40. After 40 hours, she is paid an overtime rate that is one and a half times her regular pay. If Sheila worked 43 hours last week, which expression below shows how much she earned?

   A. 40(14.50) + 3(1.5)
   B. 40(14.50) + 3(1.5)(14.50)
   C. 43(1.5)(14.50)
   D. 43(14.50)

10. If one cell is 2.3×10^4 microns wide and another cell is 3.2×10^4 microns wide, then one cell is how much bigger than the other in microns?

    A. 0.9
    B. 11.0
    C. 110.0
    D. 9,000.0

11. Marie has five television shows recorded on her DVR. She has enough time to watch three of them today, and must decide in what order she will watch them. How many different orderings of the three shows she watches today can Marie choose?

    A. 10
    B. 30
    C. 60
    D. 120

12. Which of the following is the value of
$$\frac{\left(2^{12}\right)\left(2^5\right)\left(\sqrt{5}\right)^4}{\left(2^{16}\right)\left(5^3\right)} ?$$

    A. $\dfrac{2}{5}$

    B. 4

    C. 10

    D. 20