Name _____ Date _____

**Tell whether the ratio is in simplest form. If not, write it in simplest form.**

**1.** 16 to 34

**2.** $17 : 65$

**3.** $\dfrac{33}{108}$

**Solve the proportion.**

**4.** $\dfrac{1}{2} = \dfrac{p}{14}$

**5.** $\dfrac{2}{3} = \dfrac{x}{21}$

**6.** $\dfrac{14}{8} = \dfrac{y}{20}$

**7.** $\dfrac{y}{6} = \dfrac{15}{9}$

**8.** $\dfrac{10}{15} = \dfrac{m}{39}$

**9.** $\dfrac{b}{8} = \dfrac{50}{20}$

**10.** $\dfrac{8}{2.5} = \dfrac{d}{0.5}$

**11.** $\dfrac{1.4}{1.6} = \dfrac{z}{10}$

**12.** $\dfrac{n}{4} = \dfrac{0.3}{1.5}$

**Write the sentence as a proportion. Then solve the proportion.**

**13.** 5 is to 12 as $x$ is to 48.

**14.** $w$ is to 9 as 7 is to 36.

**15.** $d$ is to 4 as 32 is to 56.

**16.** 22 is to 50 as $x$ is to 500.

**17.** 10 is to 45 as $b$ is to 225.

**18.** $n$ is to 18 as 64 is to 72.

**19. Books** Over the summer, you read 20 books. Eight of these books were biographies.

    **a.** Find the ratio of biographies to the total number of books.

    **b.** Find the ratio of non-biographies to biographies.

    **c.** Find the ratio of non-biographies to the total number of books.

**20. Fitness Center** The table shows the number of people attending classes at a fitness center during a recent evening.

| Class | Aerobics | Spinning | Yoga |
|---|---|---|---|
| **Number of people** | 32 | 28 | 16 |

    **a.** Find the ratio of the number of people taking yoga to the number of people taking spinning class.

    **b.** Find the ratio of the number of people taking aerobics to the total number of people taking classes.

**21. Mailroom** You work in the local mailroom at a college. One of your duties is to sort local mail from all of the other mail. You can sort 8 pieces of mail in 10 seconds. How many pieces of mail should you be able to sort in 45 minutes?

**22. Music** A music downloading website reports that nearly 5 out of every 7 songs downloaded are classified as pop music. According to this information, predict how many of the next 500 songs downloaded will be pop songs. Round your answer to the nearest whole number.