11.

Find the geometric mean(s) between each pair of extremes:

   a. 4 and 25

   b. 3 and 5

   c. a and b

12.

A 60-m steel pole is cut into two parts in the ratio of 11 to 4. How much longer is the longer part than the shorter?

13.

   The ratio of the measures of the sides of a quadrilateral is 2:3:5:7. If the figure's perimeter is 68, find the length of each side.

15.

   If 4 is the mean proportional between 6 and a number, what is the number?

16.

   On the number line below, locate the arithmetic mean and the positive geometric mean between the two numbers shown.

   5   15

17.

The ratio of the measure of the supplement of an angle to the measure of the complement of the angle is 5:2. Find the measure of the supplement.

18.

Is $\dfrac{x-5}{4} = \dfrac{c}{3}$ equivalent to $\dfrac{x-1}{4} = \dfrac{c+3}{3}$?

$\left(\text{Hint: use the fact that } \dfrac{a}{b} = \dfrac{c}{d} \text{ is equivalent to } \dfrac{a+b}{b} = \dfrac{c+d}{d} \right)$

20.

If ex - fy = gx + hy, find the ratio of x to y.

21.

Reduce the ratio $\dfrac{x^2 - 7x + 12}{x^2 - 16}$ to lowest terms.