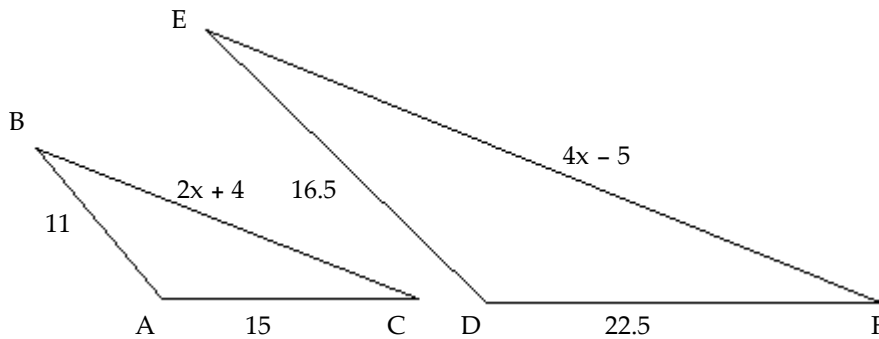


Solve the problem.

- 1) The sum of an integer and its reciprocal is $\frac{37}{6}$. Find the integer. 1) _____
 A) 6 B) 5 C) 37 D) 7
- 2) One printer can do a printing job in 5 hr. Another printer can do the same job in 11 hr. How long does it take the two printers to do the job working together? 2) _____
 A) $\frac{1}{16}$ hr B) $3\frac{4}{17}$ hr C) $3\frac{7}{16}$ hr D) $9\frac{1}{6}$ hr
- 3) One maid can clean the house in 3 hr. Another maid can do the job in 6 hr. How long will it take them to do the job working together? 3) _____
 A) 2 hr B) 6 hr C) $\frac{1}{18}$ hr D) $\frac{1}{9}$ hr

Suppose the triangles shown are similar with angle A = angle D, angle B = angle E, and angle C = angle F. Answer the question.

- 4) _____



What is the length of side EF?

- A) $\frac{1}{2}$ B) 203 C) 39 D) 143

Determine whether the situation or equation represents direct or inverse variation.

- 5) The frequency that you brush your teeth and the length of time that you retain all your teeth 5) _____
 A) Direct B) Inverse
- 6) The ability of a truck to climb hills and the weight of its cargo 6) _____
 A) Direct B) Inverse

Solve the problem involving direct or inverse variation.

- 7) If x varies inversely as y^2 , and $x = 3$ when $y = 30$, find x when $y = 6$. 7) _____
 A) $x = 5$ B) $x = 75$ C) $x = 45$ D) $x = 108$

Solve the problem.

- 8) The distance it takes to stop a car varies directly as the square of the speed of the car. If it takes 112 feet for a car traveling at 40 miles per hour to stop, what distance is required for a speed of 49 miles per hour? 8) _____
 A) 144.06 ft B) 168.41 ft C) 168.07 ft D) 180.37 ft

Solve the formula for the specified variable.

9) $\frac{1}{a} + \frac{1}{b} = \frac{1}{c}$ for c

9) _____

A) $c = \frac{a+b}{ab}$

B) $c = a + b$

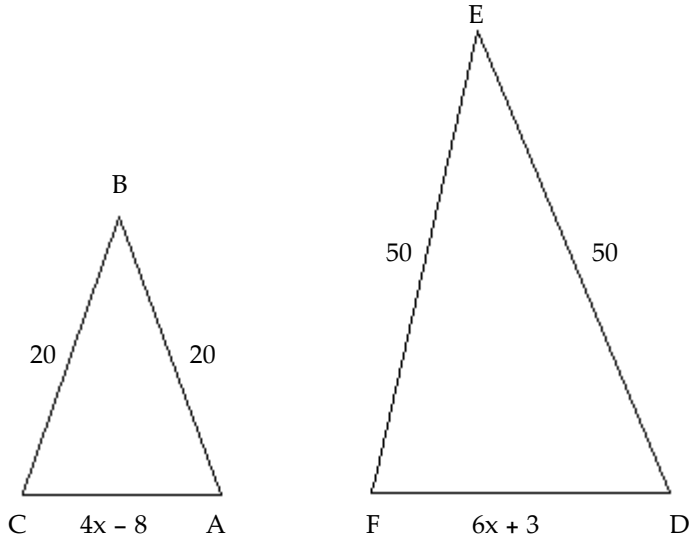
C) $c = \frac{ab}{a+b}$

D) $c = ab(a+b)$

Suppose the triangles shown are similar with angle A = angle D, angle B = angle E, and angle C = angle F. Answer the question.

10)

10) _____



What is the value of x?

A) 20

B) 10

C) $\frac{31}{2}$

D) $\frac{23}{4}$