school
nova™

1. **Calculate:**

$$\frac{3}{5} : \frac{27}{45} =$$
　　　　　　$$\frac{14a}{48} : \frac{8a}{42} =$$
　　　　　　$$\frac{3}{5} : \frac{11}{5} =$$
　　　　　　$$\frac{9}{10} x \frac{5}{12} =$$

Solve equations by substitution:

Example:　$(y + 5) \div 3 = 7$

substitution: $y + 5 = z$

$z \div 3 = 7$

$z = 7 \times 3 = 21$

$y + 5 = 21$
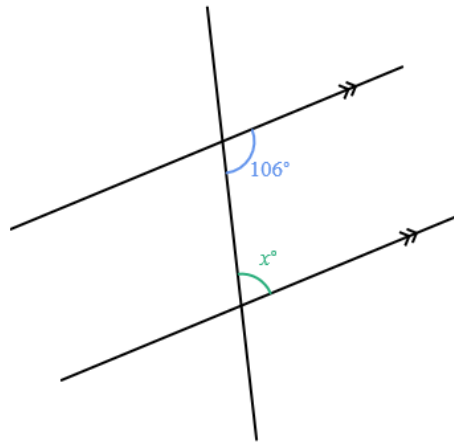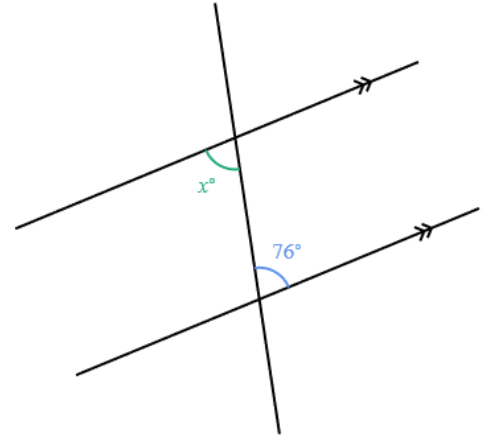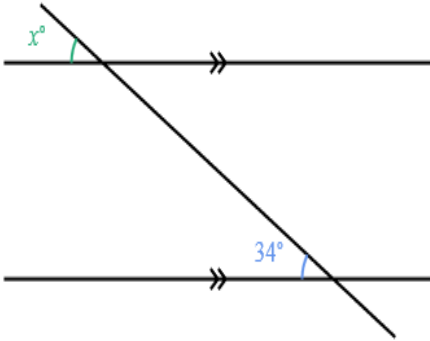
$y = 21 - 5 = 16$　　*Check:* $(16 + 5) \div 3 = 7$

$a)\ (x - 12) \times 8 = 56$　　　　　　　　　　$b)\ 124 \div (y - 5) = 31$

2. In a zoo there are birds (they have 2 legs each) and mammals with 4 legs each. How many birds and mammals are in the zoo, if they have 6000 legs and 2500 heads altogether? (use substitution)
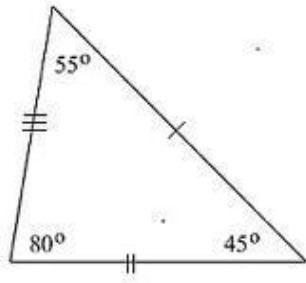
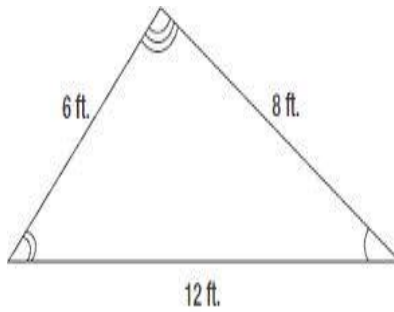**Geometry:**

Find the missing angles

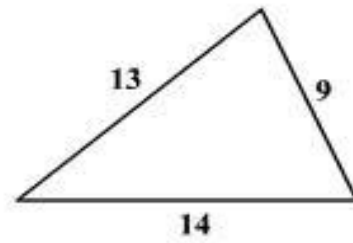How to construct a triangle with sides equal to three line segments:

For the given triangles make the correct fit of angles and sides.

a) 15cm, 10cm, 8cm

b) 44°,70°, ?

c) 35°, 65°, ?

Find _x_