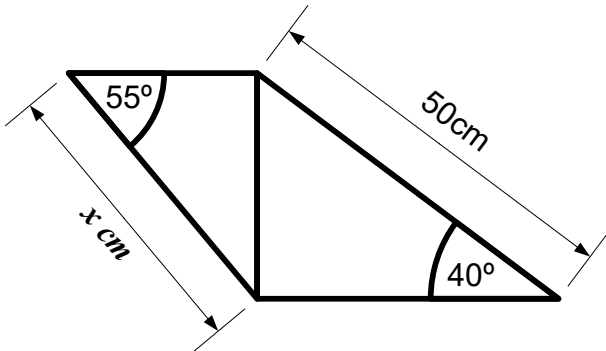


Trigonometry Revision

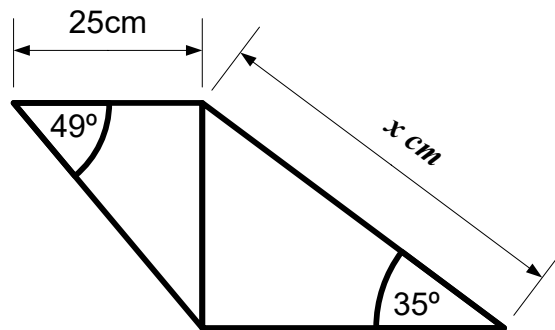
1.



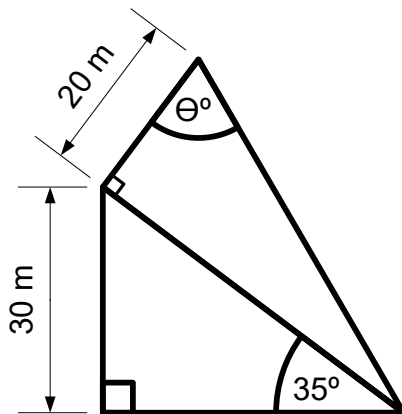
Look at the diagram on the left.

Use the information provided to determine the length of x .

2. Determine the length of x marked on the diagram to the right.



3.



The diagram on the left shows two right angled triangles.

What is the angle marked θ ?

Fraction Revision

1 $2\frac{2}{5} + 3\frac{7}{12} =$

2 $4\frac{4}{7} + 3\frac{8}{9} =$

3 $5\frac{2}{7} - 3\frac{5}{12} =$

4 $2\frac{5}{9} - 3\frac{7}{11} =$

5 $\frac{2}{5} \times \frac{7}{12} =$

6 $\frac{3}{8} \times 3\frac{8}{9} =$

7 $\frac{2}{5} \div \frac{7}{12} =$

8 $4\frac{1}{7} \div 2\frac{8}{9} =$

Function Revision

$f(x) = 2x + 3$ $g(x) = 3x + 2$ $h(x) = 5x - 4$

Evaluate the following:

1 $f(2) =$

2 $f(7) =$

3 $g(4) =$

4 $g(9) =$

5 $h(-2) =$

6 $h(-7) =$

Composite functions

7 $g(f(3)) =$

8 $h(g(-2)) =$

9 $f(g(h(4))) =$

10 $g(h(f(4))) =$

Inverse Functions

11 $f^{-1}(x) =$

12 $g^{-1}(x) =$

13 $h^{-1}(x) =$

Percentages

- 1 What is 23% of £150?
- 2 Add 45% to 280.
- 3 Increase 55 by 35%.
- 4 John scored 180 out of 250 marks in a test. What percentage did he score?
- 5 The sale price of a shirt is £35. The sale offer is 12% off. What was the original price of the shirt?
- 6 The fuel tank in the car is 15% empty. According to the onboard computer, there is now enough fuel to take the car 320 miles. What was the range of the car when the tank was full?
- 7 A boat ran its engines at 58% of full power, resulting in the associated reduction in its speed. If the journey it was on took 3 hours 55 minutes, how long would it have taken if the engines were running at full speed?

Simultaneous Equations

- 1 $3x + 2y = 31$
 $5x + 2y = 41$
- 2 $9x + 5y = 136$
 $9x + 9y = 180$
- 3 $7x + 4y = 156$
 $9x + 2y = 144$
- 4 $3x - 2y = 20$
 $5x - 7y = 4$
- 5 $6y - 3x = 93$
 $7x + 4y = 107$

Algebra

1. $12d + 4 = 5d + 26$
2. $8t - 78 = 5t + 2$
3. $9y - 45 = 8y + 5$
4. $4f + 78 = 9f - 152$