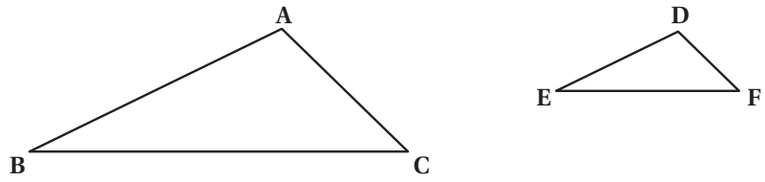
Worksheet 1

Revision: Similar triangles

1. In the diagram, $\triangle ABC \,|||\, \triangle DEF$, $\hat{A} = 100°$ and $\hat{B} = 30°$.



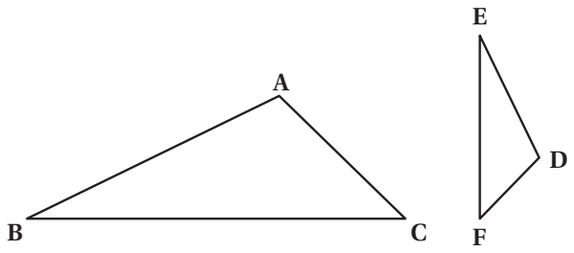
Calculate the value of:

1.1 $\hat{C}$ **1.2** $\hat{D}$ **1.3** $\hat{F}$ **1.4** $\hat{E}$

2. In the diagram, $\triangle ABC \,|||\, \triangle DEF$, AB = 4, BC = 6 and EF = 3.
Calculate the length of:

2.1 DE

2.2 AC if DF = 1.



3. Use the diagram to answer the questions.

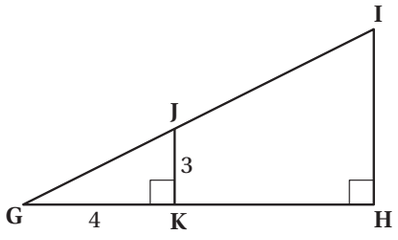
3.1 Prove that $\triangle JGK \,|||\, \triangle IGH$.

3.2 If $\hat{G} = 30°$, calculate $\hat{J}$.

3.3 Calculate the length of:

a) JG

b) IH.



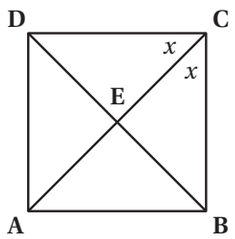
Identifying quadrilaterals and properties

1. Match each quadrilateral with the property that best describes it.

	Property		Quadrilateral
1.1	A figure with four sides	**A**	Kite
1.2	A quadrilateral with both pairs of opposite sides parallel	**B**	Square
1.3	A parallelogram with a right angle	**C**	Parallelogram
1.4	A rhombus with a right angle	**D**	Rectangle
1.5	A parallelogram with one pair of adjacent sides equal	**E**	Trapezium
1.6	A quadrilateral with one pair of opposite sides parallel	**F**	Quadrilateral
1.7	A quadrilateral with two pairs of equal adjacent sides	**G**	Rhombus

2. Complete each statement in relation to the given quadrilateral.

2.1 Square ABCD is given with diagonals DB and AC.



a) x = ___

b) $D\hat{E}C$ = ___

c) AB = ___

d) DE = ___ = EC = ___

e) AD || ___

f) DC || ___