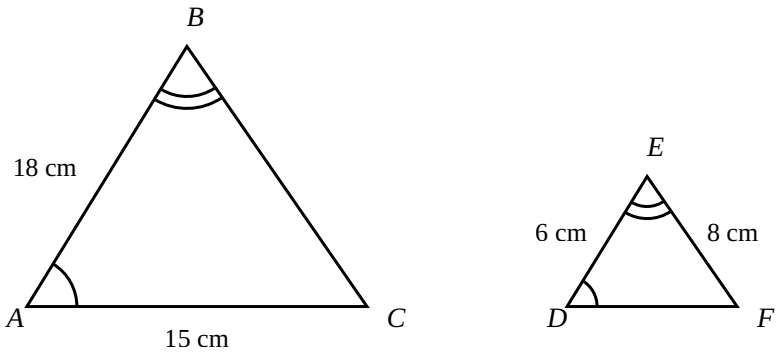
GEOMETRY: SIMILAR TRIANGLES

Best Guess Mastery Worksheet (Target Grade 5/6)

I Do

ABC and *DEF* are similar triangles.

Diagram NOT accurately drawn



(a) Work out the length of *DF*.

cm

(2)

(b) Work out the length of *BC*.

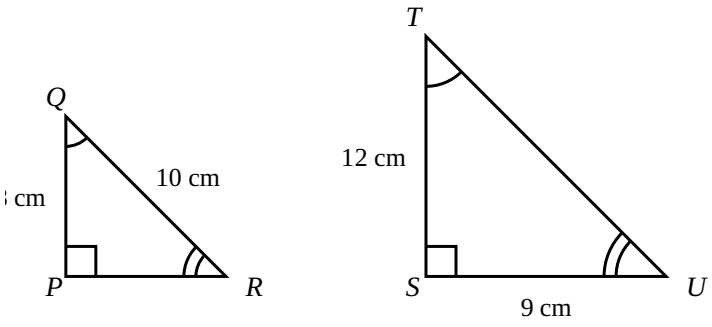
cm

(2)

We Do

PQR and *STU* are similar triangles.

Diagram NOT accurately drawn



(a) Work out the length of *PR*.

cm

(2)

(b) Work out the length of *TU*.

cm

(2)

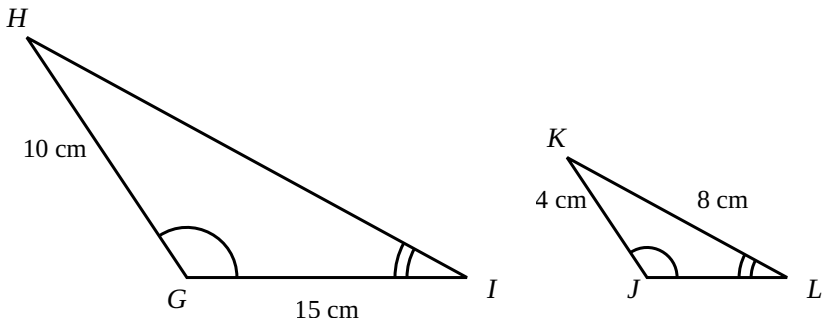
GEOMETRY: SIMILAR TRIANGLES

Best Guess Mastery Worksheet (Target Grade 5/6)

You Do 1

GHI and *JKL* are similar triangles.

Diagram NOT accurately drawn



(a) Work out the length of *JL*.

cm

(2)

(b) Work out the length of *HI*.

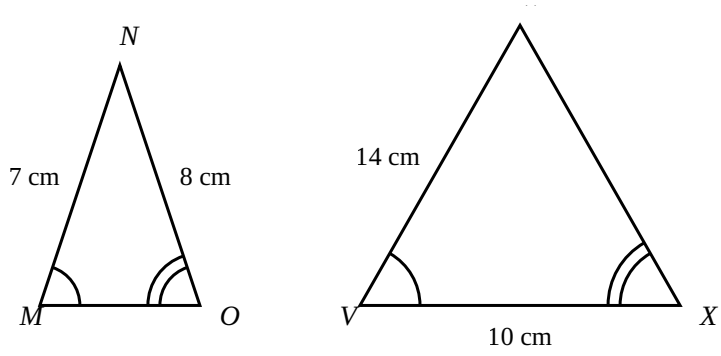
cm

(2)

You Do 2

MNO and *VWX* are similar triangles.

Diagram NOT accurately drawn



(a) Work out the length of *MO*.

cm

(2)

(b) Work out the length of *WX*.

cm

(2)

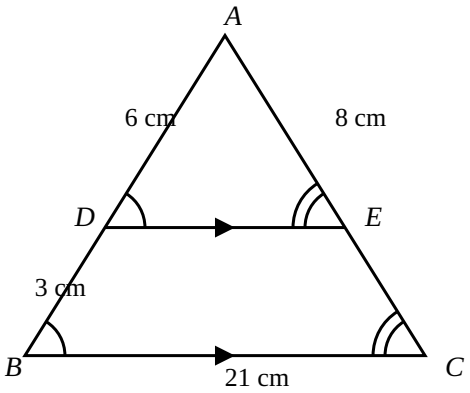
GEOMETRY: SIMILAR TRIANGLES

Best Guess Mastery Worksheet (Target Grade 5/6)

Challenge 1

ABC is a triangle.
D is a point on *AB* and *E* is a point on *AC*.
DE is parallel to *BC*.

Diagram NOT accurately drawn



(a) Work out the length of *EC*. cm

(2)

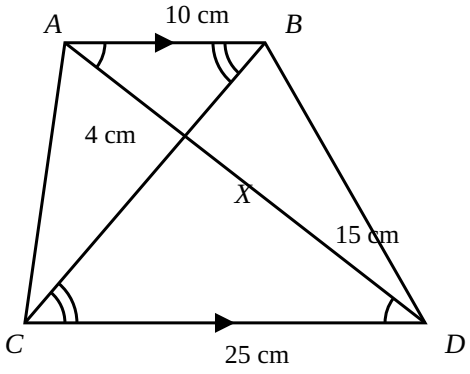
(b) Work out the length of *DE*. cm

(2)

Challenge 2

AB is parallel to *DC*.
AD and *BC* intersect at *X*.

Diagram NOT accurately drawn



(a) Work out the length of *XC*. cm

(2)

(b) Work out the length of *XB*. cm

(2)

Answers & Worked Solutions

I Do:

Scale Factor (SF) = 18 ÷ 6 = 3

(a) *DF* = 15 ÷ 3 = **5 cm**

(b) *BC* = 8 × 3 = **24 cm**

We Do:

Scale Factor (SF) = 12 ÷ 8 = 1.5

(a) *PR* = 9 ÷ 1.5 = **6 cm**

(b) *TU* = 10 × 1.5 = **15 cm**

You Do 1:

Scale Factor (SF) = 10 ÷ 4 = 2.5

(a) *JL* = 15 ÷ 2.5 = **6 cm**

(b) *HI* = 8 × 2.5 = **20 cm**

You Do 2:

Scale Factor (SF) = 14 ÷ 7 = 2

(a) *MO* = 10 ÷ 2 = **5 cm**

(b) *WX* = 8 × 2 = **16 cm**

Challenge 1:

Triangles *ADE* and *ABC* are similar. *AB* = 6 + 3 = 9 cm.

SF = 9 ÷ 6 = 1.5

(a) *AC* = 8 × 1.5 = 12 cm. Therefore, *EC* = 12 − 8 = **4 cm**.

(b) *DE* = 21 ÷ 1.5 = **14 cm**.

Challenge 2:

Triangles *ABX* and *DCX* are similar. SF = 25 ÷ 10 = 2.5

(a) *XC* corresponds to *AX*. *XC* = 4 × 2.5 = **10 cm**.

(b) *XB* corresponds to *DX*. *XB* = 15 ÷ 2.5 = **6 cm**.