# Name: _____

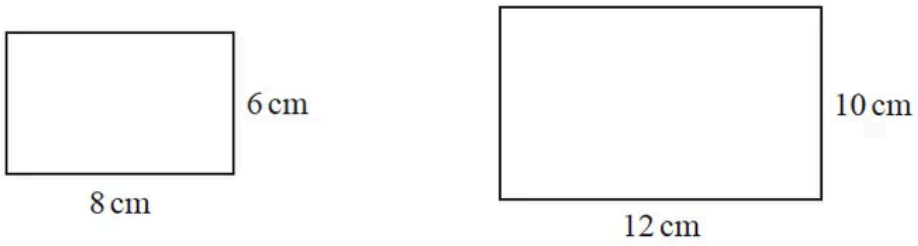
| GCSE (1 - 9)<br><br>Similar Shapes | Solutions: |
|---|---|

These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

| Question | Where the question appeared |
|---|---|
| 1 | Edexcel, GCSE, Autumn 2018, Paper 1F, Q16 |
| 2 | Edexcel, GCSE, Autumn 2019, Paper 1F, Q29 |
| 3 | Edexcel, GCSE, Summer 2017, Paper 2F, Q21 |
| 4 | Edexcel, GCSE, Summer 2017, Paper 3F, Q21 |
| 5 | Edexcel, GCSE, Summer 2018, Paper 3F, Q27 |
| 6 | Edexcel, GCSE, November 2022, Paper 2F, Q25 |
| | |
| | |
| | |

**1**

Here are two rectangles.




Jim says,

"The two rectangles are similar because $8 + 4 = 12$ and $6 + 4 = 10$"

Is Jim correct?
Explain your answer.

.....

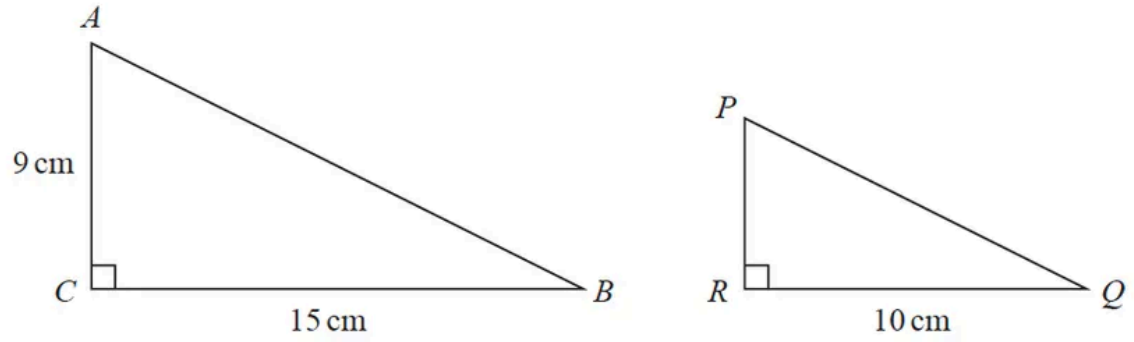
.....

**(Total for Question 16 is 1 mark)**

*[Edexcel, GCSE, Autumn 2018, Paper 1F, Q16]*

**2**

*ABC* and *PQR* are similar right-angled triangles.



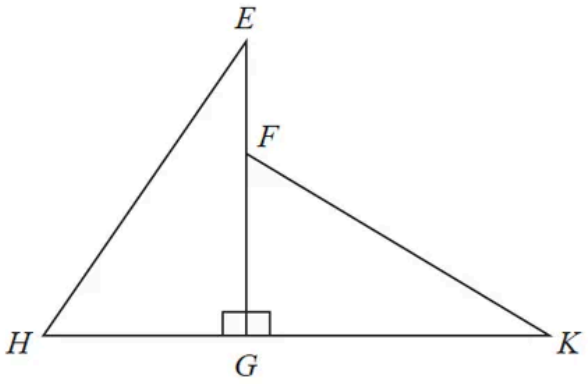

angle *ABC* = angle *PQR*

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

..... cm

**(2)**

Triangle *EGH* is congruent to triangle *KGF*.




*HK* = 10 cm.
*HG* = 4 cm.

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

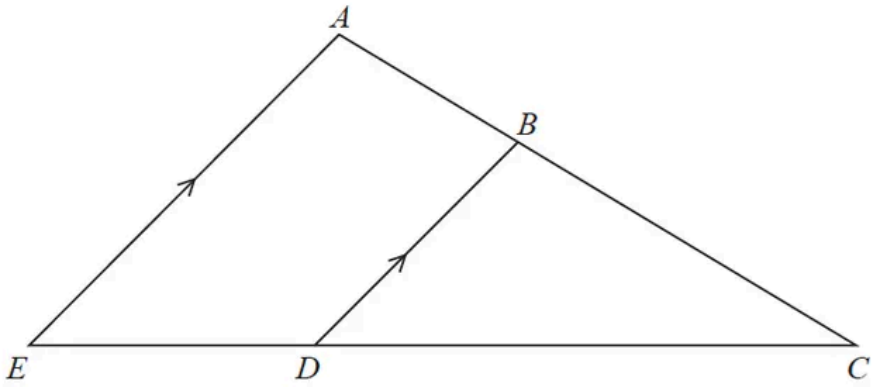
..... cm

**(2)**

**(Total for Question 29 is 4 marks)**

*[Edexcel, GCSE, Autumn 2019, Paper 1F, Q29]*

**3**




*ABC* and *EDC* are straight lines.
*EA* is parallel to *DB*.

*EC* = 8.1 cm.
*DC* = 5.4 cm.
*DB* = 2.6 cm.

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

..... cm
(2)

*AC* = 6.15 cm.

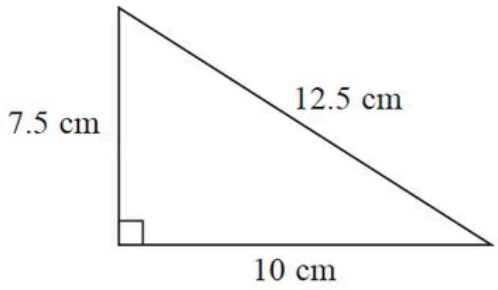
(b) Work out the length of *AB*.

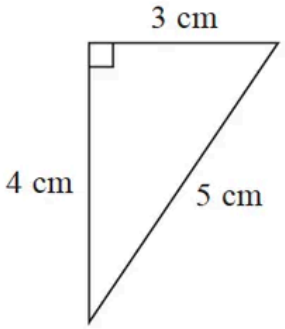
..... cm
(2)

**(Total for Question 21 is 4 marks)**

*[Edexcel, GCSE, Summer 2017, Paper 2F, Q21]*

**4**



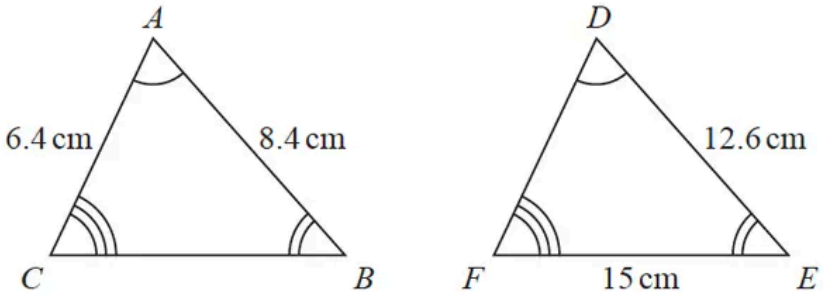

Show that these two triangles are mathematically similar.

**(Total for Question 21 is 2 marks)**

*[Edexcel, GCSE, Summer 2017, Paper 3F, Q21]*

**5**

Triangle $ABC$ and triangle $DEF$ are similar.




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

..... cm

**(2)**

(b) Work out the length of $CB$.

..... cm

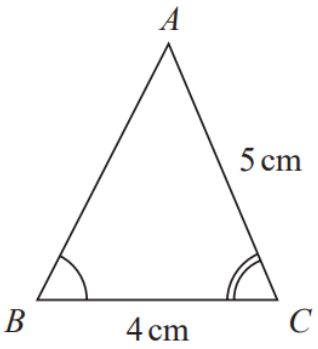
**(2)**

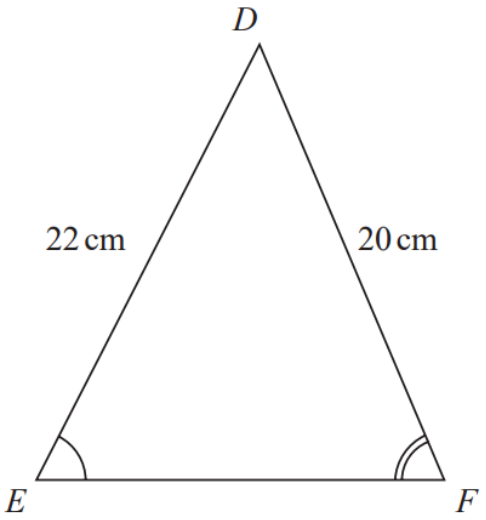
**(Total for Question 27 is 4 marks)**

*[Edexcel, GCSE, Summer 2018, Paper 3F, Q27]*

**6**

Triangle $ABC$ and triangle $DEF$ are similar.




(a) Work out the length of $EF$.

..... cm

**(2)**

(b) Work out the length of $AB$.

..... cm

**(2)**

**(Total for Question 25 is 4 marks)**

*[Edexcel, GCSE, November 2022, Paper 2F, Q25]*