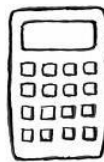


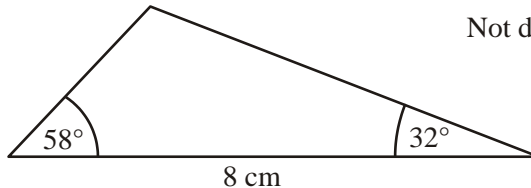
Name:

Teacher
Assessment



Section A **Constructing Shapes** **Grade E / D**

1. Here is a sketch of a triangle.



Not drawn accurately

In the space below, make an accurate drawing of the triangle.

(Total 3 marks)

2. In triangle ABC , the side AB is 7 cm. Angle $A = 40^\circ$ and angle $B = 95^\circ$.

Make an accurate drawing of the triangle in the space below.
The side AB has been drawn for you.

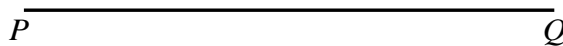


(Total 2 marks)

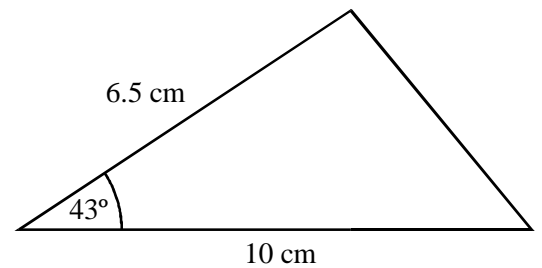
3. In triangle PQR , the side $PQ = 7.5$ cm.
Angle $P = 70^\circ$ and angle $R = 80^\circ$.

Make an accurate drawing of the triangle in the space below.
The line PQ has been drawn for you.

(Total 3 marks)



4. In the space below, make an accurate drawing of this triangle.
The base line has been drawn for you.



(Total 2 marks)

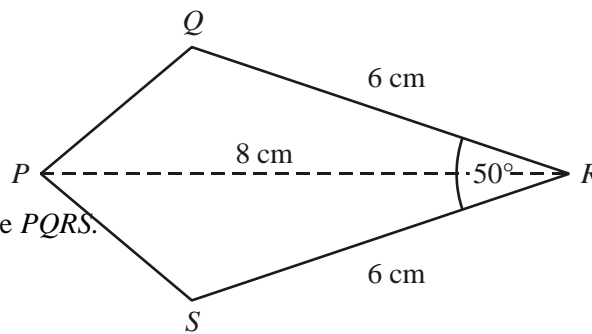
5. In triangle ABC , angle $A = 100^\circ$, $AB = 7$ cm and $AC = 4$ cm.

Make an accurate drawing of the triangle.
The side AB has been drawn for you.



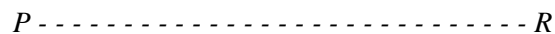
(Total 2 marks)

6. The kite $PQRS$ is sketched below.
 $QR = SR = 6$ cm
Angle $QRS = 50^\circ$
The diagonal $PR = 8$ cm



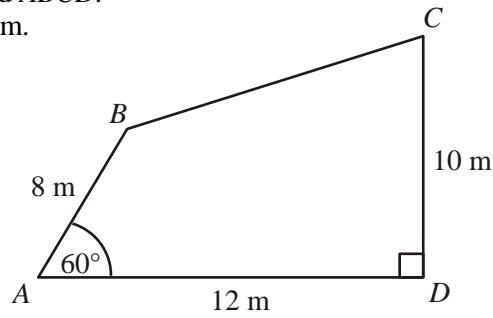
Not to scale

Make an accurate drawing of the kite $PQRS$.
 PR has been drawn for you.



(Total 3 marks)

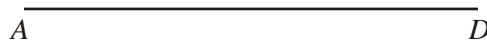
7. The diagram shows the plan of a field $ABCD$.
 $AB = 8$ m, $AD = 12$ m and $CD = 10$ m.
 Angle $A = 60^\circ$ and angle $D = 90^\circ$



Make a scale drawing of the field.
 Use the scale 1 cm represents 2 m.
 The line AD has been drawn for you.

Not to scale

Scale:
 1 cm
 represents
 2 m



(Total 3 marks)

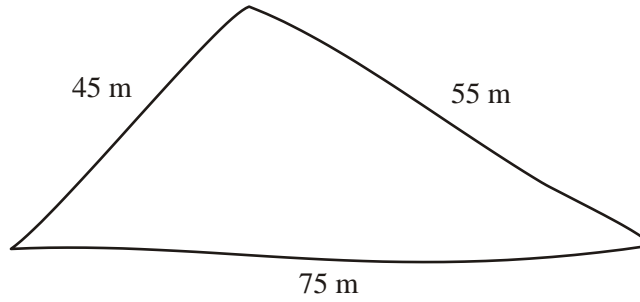
- The sides of a parallelogram are 6 cm and 3.5 cm.
 The acute angle between the sides is 70° .

Make an accurate drawing of the parallelogram.
 A side of length 6 cm has been drawn for you.



(Total 4 marks)

9. The diagram shows a rough sketch of a triangular field.



- (a) Using ruler and compasses only, make an accurate scale drawing of the field.
Use a scale of 1 cm to represent 10 m.
You must show clearly all your construction arcs.

(3)

- (b) The length of one side of the field is 75 metres.
This length is measured to the nearest metre.

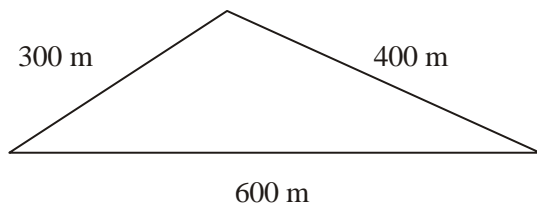
What is the smallest possible length of this side.

Answer m

(1)

(Total 4 marks)

10. A plot of land is in the shape of a triangle with sides 300 m, 400 m and 600 m. The sketch shows the plot of land.



Not drawn accurately

Draw the triangle accurately, using a scale of 1 cm to 50 m.

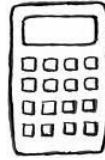
(Total 3 marks)

- 11.** Use a ruler and compasses to construct a rhombus that has sides of 6 cm and whose shorter diagonal is 4 cm.

(Total 4 marks)

Success:

Target:

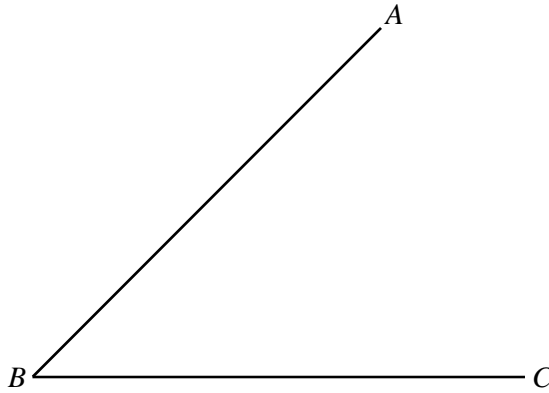


Section B

Angle and Line Bisectors

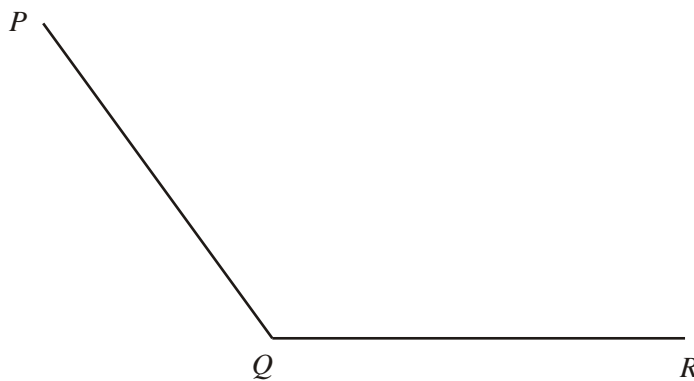
Grade D / C

1. Using ruler and compasses only, construct the bisector of angle ABC .



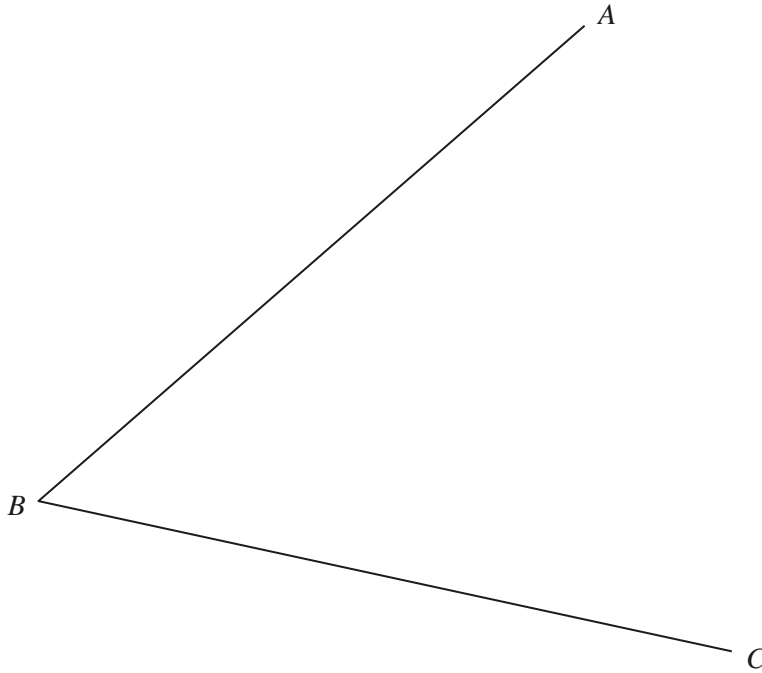
(Total 2 marks)

2. Using ruler and compasses only, construct the bisector of angle PQR .



(Total 2 marks)

3. Using a ruler and compasses construct the bisector of angle ABC .



(Total 2 marks)

4. (a) The line LM is drawn below.



Use ruler and compasses to construct the perpendicular bisector of LM .
You **must** show clearly all your construction arcs.

(2)

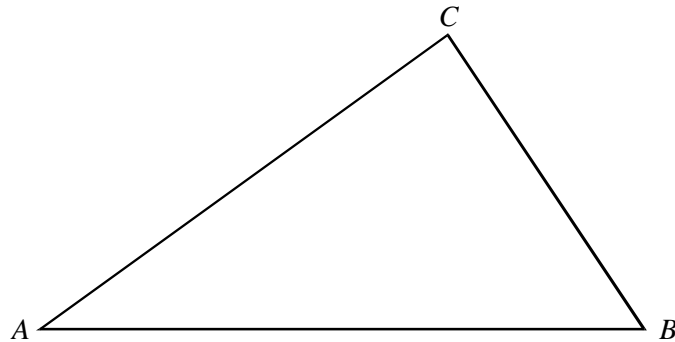
- (b) Complete the sentence. The perpendicular bisector of LM is the locus of points which are

.....

(1)

(Total 3 marks)

5. The diagram shows a triangle, ABC .

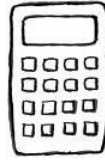


- (a) Using a ruler and compasses only, construct the perpendicular bisector of AB .
You **must** show clearly all your construction arcs. (2)
- (b) (i) Repeat this construction on another side of the triangle. (1)
- (ii) The point of intersection of the two bisectors is the centre of the circle which passes through A , B and C .
Draw this circle. (2)

(2)
(Total 5 marks)

Success:

Target:

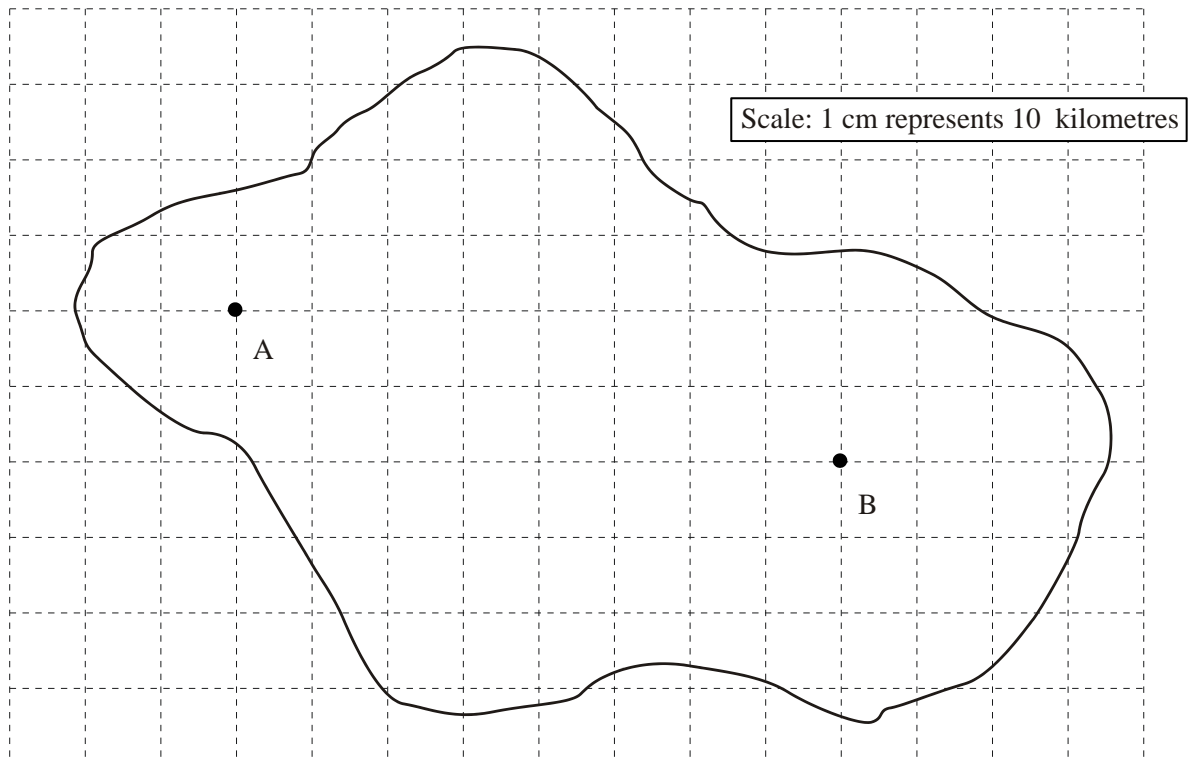


Section C

Loci

Grade C

1. There are two TV transmitters on an island.
The transmitter at A has a range of 40 km.
The transmitter at B has a range of 60 km.



Show clearly the area in which the signal from both transmitters can be received.

(Total 3 marks)

2. Two lifeboat stations *A* and *B* receive a distress call from a boat.
The boat is within 6 kilometres of station *A*.
The boat is within 8 kilometres of station *B*.

Shade the possible area in which the boat could be.

Scale: 1 cm represents
1 km



(Total 2 marks)

3. The diagram shows three towns *A*, *B* and *C*. 1 cm represents 2 km.

Show on the diagram the region which is less than 10 km from all three towns.

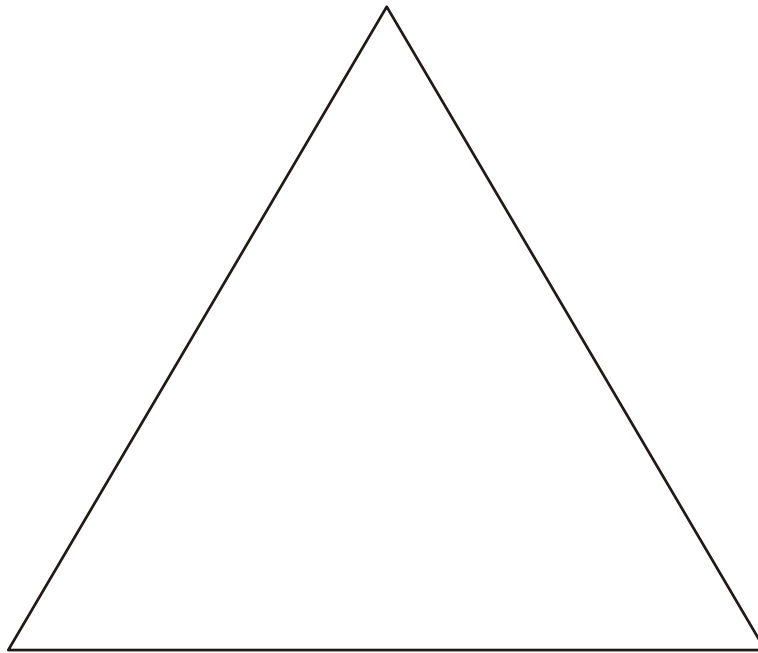
Scale: 1 cm represents 2 km



(Total 3 marks)

4. In this question, you should use a ruler and compasses. The diagram shows an equilateral
St Paul's Catholic School

triangle of side 10 cm.



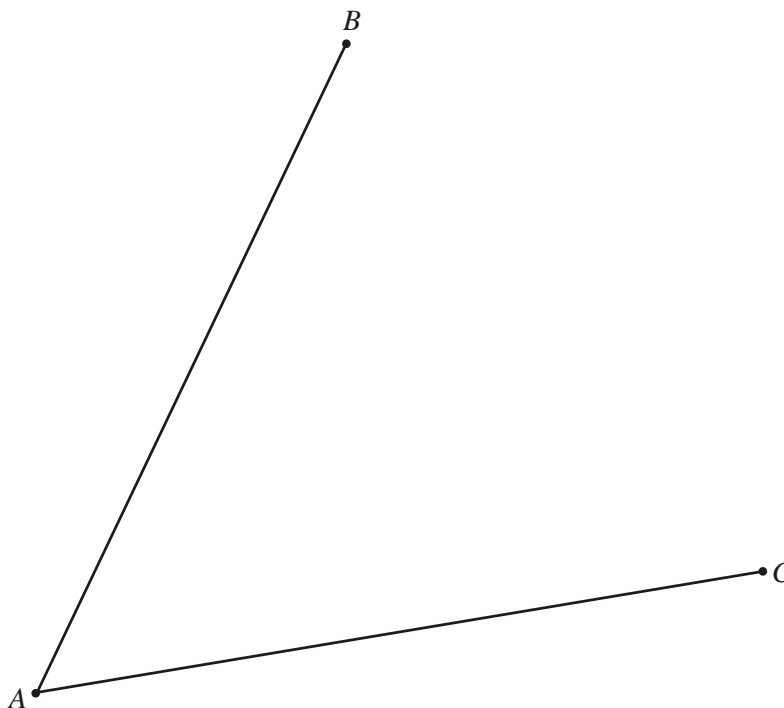
Show on the diagram all the points inside the triangle that are more than 5 cm from each vertex of the triangle. You **must** show clearly all your construction arcs.

(Total 3 marks)

5. AB and AC represent two walls. A mast is to be erected that is

- equidistant from AB and AC between 40 m and 70 m from A .

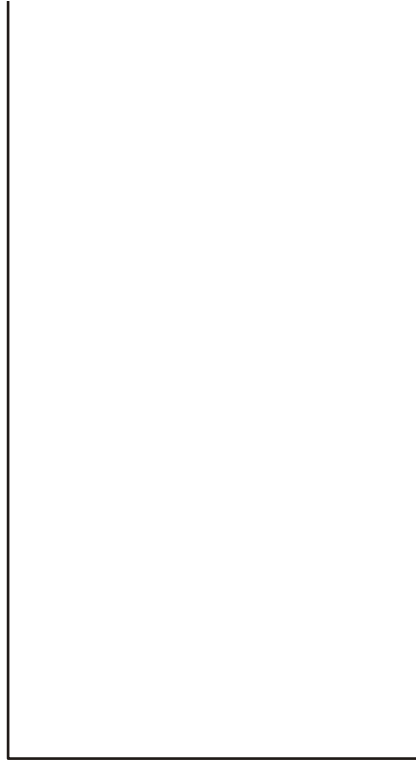
Scale: 1 cm represents 10 m



Show clearly all the possible positions of the mast.

(Total 3 marks)

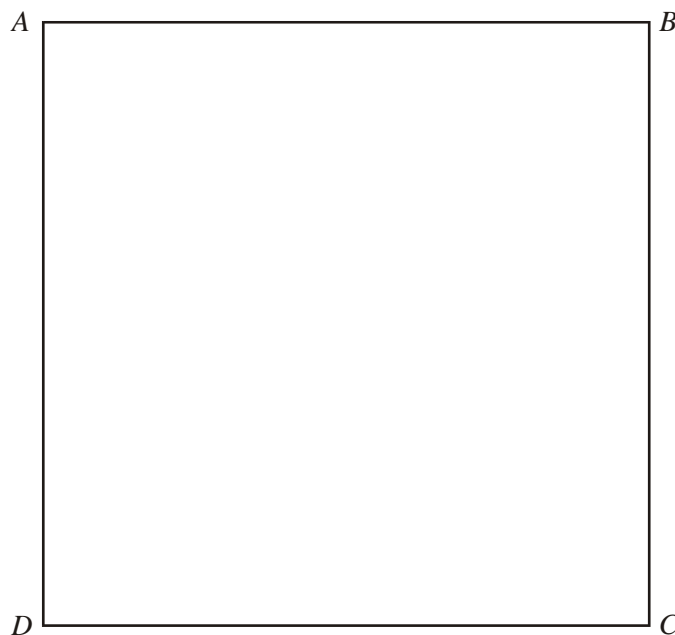
6. The diagram shows an L shape.



Draw the locus of all points 2 cm from the L shape.

(Total 3 marks)

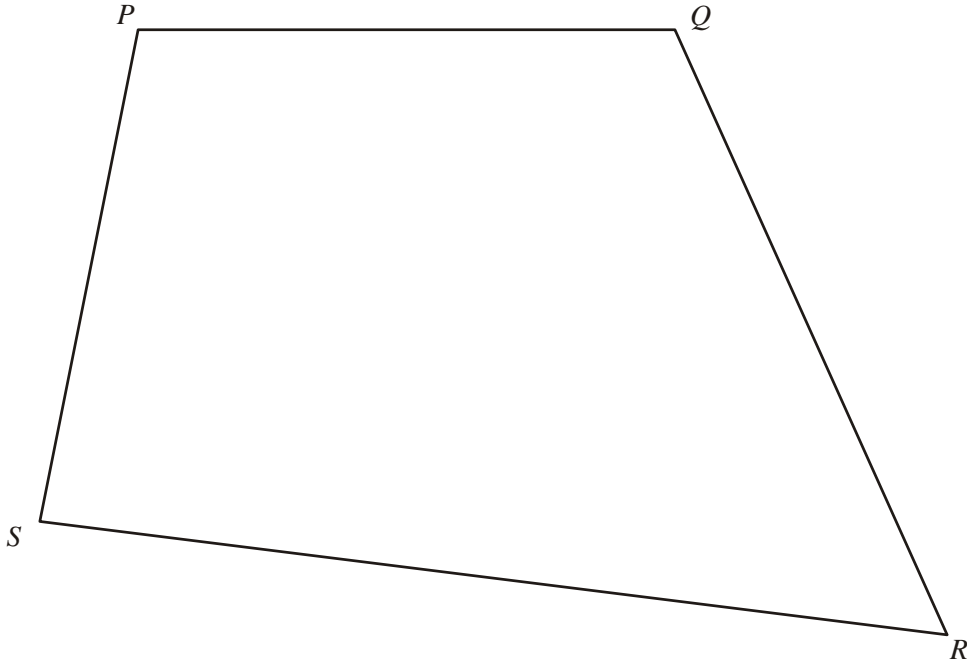
7. $ABCD$ is a square of side 8 cm.



Show clearly the region inside the square that is both closer to the point D than to the point A , and closer to the side CD than the side AD .

(Total 3 marks)

8. The diagram shows a quadrilateral $PQRS$.

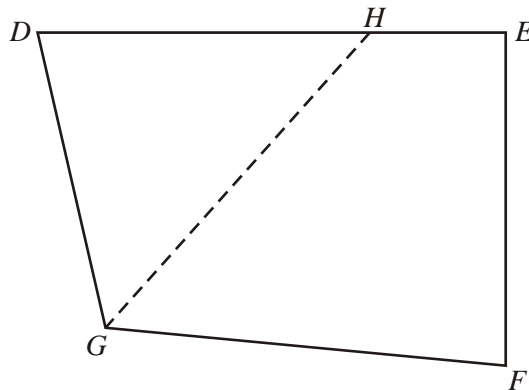


- (a) Draw the locus of points that are the same distance from P as from Q . (2)

- (b) Shade the region inside the quadrilateral which is less than 7 cm from S and nearer to Q than to P .

(2)(Total 4 marks)

9. The quadrilateral $DEFG$ is a scale drawing of a field.
The line GH bisects angle DGF .



Scale:
1 cm represents 10 m

- (a) Construct the locus of points in the field which are 40 m from E . (1)

- (b) Shade the area of the field which is more than 40 m from E
and nearer to DG than to GF .

(1)(Total 2 marks)

Success:

Target: