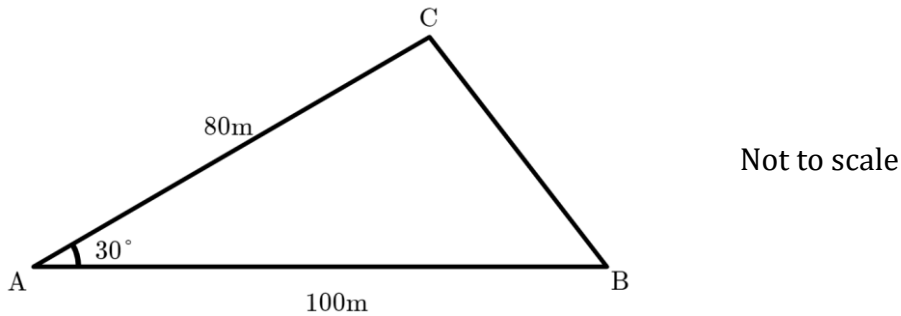


a) The diagram shows a triangular field, ABC, which is used to grow organic carrots.



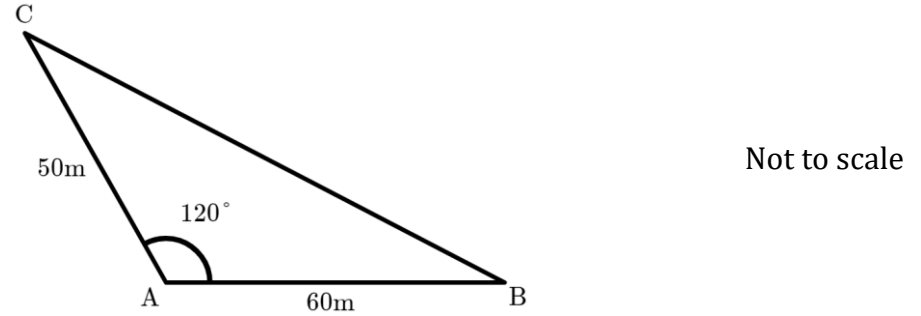
AB = 100m, AC = 80m and angle BAC = 30°.

In recent years, an average of 2.5kg of carrots has been harvested from each square metre of the field.

Use this information to work out the total mass of carrots that might have been harvested from the field this year.

What is the area of the field?	$\begin{aligned} \text{Area of a triangle} &= \frac{1}{2}ab \sin C \\ &= \frac{1}{2} \times 100 \times 80 \times \sin 30 \\ &= \frac{1}{2} \times 100 \times 80 \times \frac{1}{2} \\ &= 2000\text{m}^2 \end{aligned}$
If 2.5kg of carrots are harvested from each square metre of field, how much is this in total?	$2000 \times 2.5 = 5000$ <p style="text-align: center;">5000kg</p>

b) The diagram shows a triangular field, ABC, which is used to grow organic carrots.



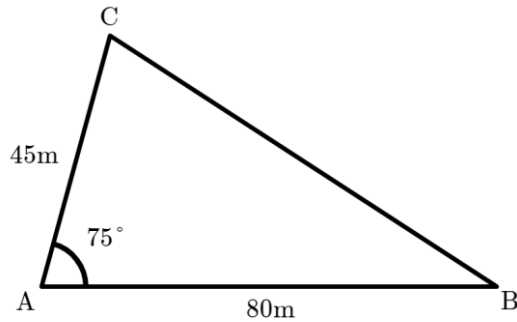
AB = 60m, AC = 50m and angle BAC = 120°.

In recent years, an average of 3.2kg of carrots has been harvested from each square metre of the field.

Use this information to work out the total mass of carrots that might have been harvested from the field this year.

What is the area of the field?	$\begin{aligned} \text{Area of a triangle} &= \frac{1}{2}ab \sin C \\ &= \frac{1}{2} \times 60 \times 50 \times \sin 120 \\ &= \frac{1}{2} \times 60 \times 50 \times \frac{\sqrt{3}}{2} \\ &= 1299\text{m}^2 \end{aligned}$
If 3.2kg of carrots are harvested from each square metre of field, how much is this in total?	

c) The diagram shows a triangular field, ABC, which is used to grow organic carrots.



Not to scale

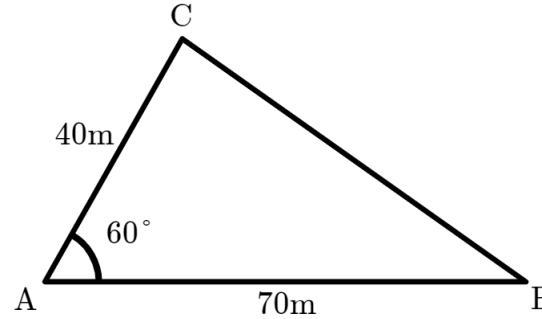
AB = 80m, AC = 45m and angle BAC = 75°.

In recent years, an average of 1.8kg of carrots has been harvested from each square metre of the field.

Use this information to work out the total mass of carrots that might have been harvested from the field this year.

<p>What is the area of the field?</p>	<p>Area of a triangle = <math>\frac{1}{2}ab \sin C</math>  <math>= \frac{1}{2} \times 80 \times 45 \times \sin 75</math></p>
<p>If 1.8kg of carrots are harvested from each square metre of field, how much is this in total?</p>	

d) The diagram shows a triangular field, ABC, which is used to grow organic carrots.



Not to scale

AB = 70m, AC = 40m and angle BAC = 60°.

In recent years, an average of 3.25kg of carrots has been harvested from each square metre of the field.

Use this information to work out the total mass of carrots that might have been harvested from the field this year.