Practice worksheet | Practical trigonometry

Triangle area

Name: _____ Date: _____

6 questions | 15 marks

1. A triangle has base 12 cm and perpendicular height 7 cm. Find its area. [2 marks]

2. Find the area using sides 10 m and 13 m enclosing 40°. Round to one decimal place. [2 marks]

3. Sides 6 cm and 8 cm enclose an acute angle. Their triangle has area $12\,\text{cm}^2$. Find the angle. [2 marks]

4. A 10 m diagonal splits a quadrilateral into triangles. Their perpendicular heights to that diagonal, on opposite sides, are 4 m and 7 m. Find the total area. [3 marks]

5. Two sides are fixed at 8 cm and 11 cm. Find the greatest possible triangle area and state when it occurs. [3 marks]

6. Triangle ABC has $a = 6$, $b = 9$ and $A = 35^\circ$. Explain why $\frac{1}{2} \times 6 \times 9 \times \sin 35^\circ$ is not justified. [3 marks]