Practice worksheet | Pythagoras and Trigonometry

Area of non-right triangles

Name: _____ Date: _____

6 questions | 15 marks

1. Find the area when sides 10 cm and 12 cm include 30°. [2 marks]

2. Sides 14 m and 9 m include 50°. Find the area to 0.1 m². [2 marks]

3. A triangle has area 15 cm². One side is 6 cm and another side b meets it at 30°. Find b. [3 marks]

4. Sides 5 cm and 10 cm enclose area 12.5 cm². Find both possible included angles. [3 marks]

5. Two sides of a triangular sign are 8 cm and 11 cm. Their included angle is acute and the area is 22 cm². Find that angle. [3 marks]

6. $AB = 7$ cm, $AC = 9$ cm and angle $B = 40^\circ$. Explain why $\frac{1}{2} \times 7 \times 9 \times \sin 40^\circ$ is not justified. [2 marks]