

Triangle from three sides - answers

Worked answers / Keep separate from the student sheet.

1. A triangle has sides 18, 24 and 30 mm. Check the triangle inequality; find its area.
 $18+24>30$; other inequalities also hold. Right triangle: area = $18 \times 24/2 = 216 \text{ mm}^2$.

2. A triangle has sides 21, 28 and 35 mm. Check the triangle inequality; find its area.
 $21+28>35$; other inequalities also hold. Right triangle: area = $21 \times 28/2 = 294 \text{ mm}^2$.

3. A triangle has sides 24, 32 and 40 mm. Check the triangle inequality; find its area.
 $24+32>40$; other inequalities also hold. Right triangle: area = $24 \times 32/2 = 384 \text{ mm}^2$.

4. A triangle has sides 27, 36 and 45 mm. Check the triangle inequality; find its area.
 $27+36>45$; other inequalities also hold. Right triangle: area = $27 \times 36/2 = 486 \text{ mm}^2$.

5. A triangle has sides 30, 40 and 50 mm. Check the triangle inequality; find its area.
 $30+40>50$; other inequalities also hold. Right triangle: area = $30 \times 40/2 = 600 \text{ mm}^2$.

6. A triangle has sides 33, 44 and 55 mm. Check the triangle inequality; find its area.
 $33+44>55$; other inequalities also hold. Right triangle: area = $33 \times 44/2 = 726 \text{ mm}^2$.