

ANSWERS

- 1) a) Angles in any triangle add up to 180° .
b) Angles in a rhombus or any quadrilateral add up to 360° .
- 2) a) $50^\circ + 30^\circ = 80^\circ$, $180^\circ - 80^\circ = 100^\circ$
b) $70^\circ + 130^\circ + 90^\circ = 290^\circ$, $360^\circ - 290^\circ = 70^\circ$
c) $75^\circ + 25^\circ = 100^\circ$, $180^\circ - 100^\circ = 80^\circ$
- 3) Since the shape is a kite, the unmarked angle is 100° .
 $100^\circ + 50^\circ + 100^\circ = 250^\circ$, so the red angle is $360^\circ - 250^\circ = 110^\circ$.

**Challenge answer:**

Each angle in a rectangle is 90° ($360^\circ \div 4$), and each angle in an equilateral triangle is 60° ($180^\circ \div 3$). Since angles around a point add up to 360° , the missing angle is $360^\circ - 90^\circ - 60^\circ = 360^\circ - 150^\circ = 210^\circ$.