Angles around a point

6 questions | 12 marks

Equivalent correct methods earn the corresponding marks.

1. Three angles around a point are 90°, 130° and x. Find x. [2 marks]

$360^\circ - (90^\circ + 130^\circ) = 140^\circ$.

Answer: 140°

2. Four angles around a point are 65°, 95°, 110° and x. Find x. [2 marks]

$65 + 95 + 110 = 270$.

$360 - 270 = 90$.

Answer: 90°

3. One angle is 120°. The other two angles around the point are equal. Find each equal angle. [2 marks]

$360^\circ - 120^\circ = 240^\circ$.

$240^\circ \div 2 = 120^\circ$.

Answer: 120°

4. Six equal angles fill a full turn. Find each angle. [1 mark]

$360^\circ \div 6 = 60^\circ$.

Answer: 60°

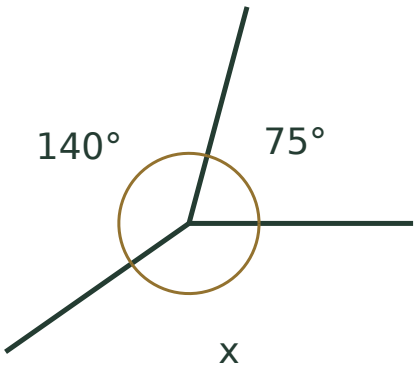
5. Mia lists angles of 90°, 90°, 80° and 90° for one complete turn. What is wrong? [2 marks]

$90 + 90 + 80 + 90 = 350$.

A full turn is 360°, leaving a 10° gap.

Answer: They total 350°, so 10° is missing.

6. Three angles around a point are 75°, 140° and x. Draw a rough sketch, find x and check the total. [3 marks]



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$75^\circ + 140^\circ = 215^\circ$.

$360^\circ - 215^\circ = 145^\circ$.

$75^\circ + 140^\circ + 145^\circ = 360^\circ$.

Answer: $x = 145^\circ$