4.4 Angles: Lines, Points and Triangles: 10-minute Pack

Calculators not allowed · about 10 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 An exterior angle of a triangle is 110 degrees. This exterior angle equals the sum of the two opposite interior angles. One of the opposite interior angles is 30 degrees. Find the other opposite interior angle.

(2)

---

2 In triangle PQR the angles are (x + 10) degrees, (2x - 20) degrees and 40 degrees. Work out x and then find the angle (2x - 20) degrees.

(3)

---

3 A triangle has angles 40 degrees and 80 degrees. The third angle is split by a line from the opposite vertex into two angles which are equal. Find the size of each of the two equal angles.

(3)

© Revision Library | revisionlibrary.co.uk

Mark scheme · 4.4 Angles: Lines, Points and Triangles: 10-minute Pack

Question 1

uses exterior angle = sum of two opposite interior angles: missing = 110 - 30	M1
80 degrees cao	A1

Answer: **80 degrees**

Question 2

forms equation (x+10) + (2x-20) + 40 = 180	M1
solves to give x = 50 (shows 3x + 30 = 180, 3x = 150)	M1
2x - 20 = 80 degrees cao	A1

Answer: **2x - 20 = 80 degrees**

Question 3

finds third angle by 180 - (40 + 80) = 60 or equivalent	M1
recognises third angle is split into two equal parts so divides by 2	M1
each angle = 30 degrees cao	A1

Answer: **30 degrees**

© Revision Library | revisionlibrary.co.uk