2.93 Angles on Lines, at Points and in Triangles: 10-minute Pack

GL ASSESSMENT GL-11PLUS-MATHS · Calculators not allowed · about 10 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 The angles around a point are 2x°, 3x°. What is the size of the smallest angle?

- ☐ A) 145°
- ☐ B) 144°
- ☐ C) 143°
- ☐ D) 72°
- ☐ E) 216°

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2 Three angles in a quadrilateral are 90°, 40° and 115°. What is the fourth angle?

- ☐ A) 115°
- ☐ B) 230°
- ☐ C) 65°
- ☐ D) 245°
- ☐ E) 125°

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3 An isosceles triangle has an angle of 106° between its two equal sides. What is the size of each of the other two angles?

- ☐ A) 74°
- ☐ B) 127°
- ☐ C) 16°
- ☐ D) 106°
- ☐ E) 37°

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4 The angles on a straight line are x°, 2x°, 3x°, 4x°. What is the value of x?

- ☐ A) 19
- ☐ B) 72
- ☐ C) 45
- ☐ D) 162
- ☐ E) 18

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5 Three angles in a quadrilateral are 135°, 90° and 90°. What is the fourth angle?

- ☐ A) 45°
- ☐ B) 55°
- ☐ C) 315°
- ☐ D) 135°
- ☐ E) 35°

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6 An isosceles triangle has an angle of 88° between its two equal sides. What is the size of each of the other two angles?

- ☐ A) 92°
- ☐ B) 44°
- ☐ C) 46°
- ☐ D) 47°
- ☐ E) 88°

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7 The angles on a straight line are x°, 2x°, 3x°. What is the size of the smallest angle?

- ☐ A) 60°
- ☐ B) 30°
- ☐ C) 150°
- ☐ D) 90°
- ☐ E) 29°

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8 Five angles around a point are x degrees, 2x degrees, 3x degrees, 40 degrees and 20 degrees.

(a) Find x. **(2)**

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(b) Find each angle in degrees. **(2)**

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Mark scheme · 2.93 Angles on Lines, at Points and in Triangles: 10-minute Pack

Question 1

correct option B (144°) cao **B1**

Answer: B) 144°

Question 2

correct option A (115°) cao **B1**

Answer: A) 115°

Question 3

correct option E (37°) cao **B1**

Answer: E) 37°

Question 4

correct option E (18) cao **B1**

Answer: E) 18

Question 5

correct option A (45°) cao **B1**

Answer: A) 45°

Question 6

correct option C (46°) cao **B1**

Answer: C) 46°

Question 7

correct option B (30°) cao **B1**

Answer: B) 30°

Question 8

(a) form equation x + 2x + 3x + 40 + 20 = 360 or 6x + 60 = 360 **M1**

(a) x = 50 cao **A1**

(a) Answer: x = 50

(b) substitute x = 50 into expressions or list values **M1**

(b) angles 50, 100, 150, 40 and 20 degrees cao **A1**

(b) Answer: Angles are 50, 100, 150, 40 and 20 degrees.

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