2.12 Angles and Shape: Test Pack

GL ASSESSMENT GL · Calculators not allowed · about 15 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Show all your working.

1 State whether each angle below is acute, right angle, obtuse, straight or reflex.

(a) An angle of 35 degrees. **(1)**

- ☐ A) acute
- ☐ B) obtuse
- ☐ C) reflex
- ☐ D) right angle

(b) An angle of 92 degrees. **(1)**

- ☐ A) acute
- ☐ B) obtuse
- ☐ C) reflex
- ☐ D) straight

(c) An angle of 180 degrees. **(1)**

- ☐ A) acute
- ☐ B) right angle
- ☐ C) straight
- ☐ D) reflex

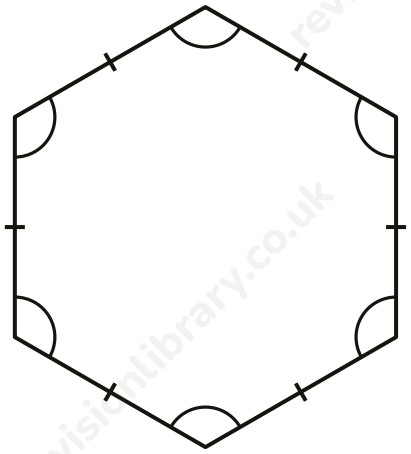
(d) An angle of 300 degrees. **(1)**

- ☐ A) acute
- ☐ B) obtuse
- ☐ C) reflex
- ☐ D) straight

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2 A regular hexagon has six equal sides and six equal angles.

Diagram NOT accurately drawn



(not to scale)

(a) Calculate the size of one exterior angle of the hexagon. **(2)**

.....

(b) Hence calculate the size of one interior angle of the hexagon. **(2)**

.....

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3 Identify the type of triangle described by each set of angles.

(a) A triangle with angles 60 degrees, 60 degrees and 60 degrees. **(1)**

- ☐ A) scalene
- ☐ B) isosceles
- ☐ C) equilateral
- ☐ D) right-angled

(b) A triangle with angles 90 degrees, 45 degrees and 45 degrees. **(1)**

- ☐ A) equilateral
- ☐ B) right-angled isosceles
- ☐ C) scalene
- ☐ D) obtuse-angled

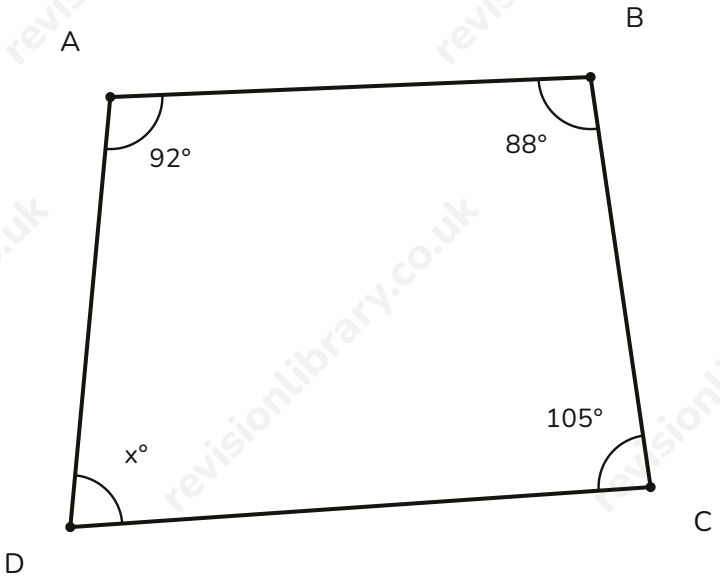
(c) A triangle with angles 40 degrees, 65 degrees and 75 degrees. **(1)**

- ☐ A) isosceles
- ☐ B) equilateral
- ☐ C) scalene
- ☐ D) right-angled

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4 Quadrilateral ABCD has angle A = 92 degrees, angle B = 88 degrees, angle C = 105 degrees and angle D = x degrees. Calculate the value of x.

Diagram NOT accurately drawn



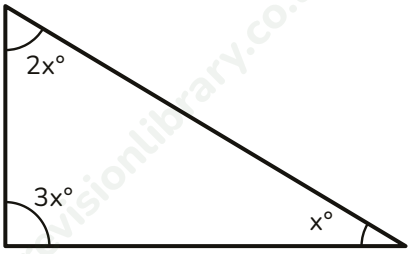
(not to scale)

(2)

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5 The three angles of a triangle are x degrees, 2x degrees and 3x degrees. Calculate the value of x and hence find the size of each angle.

Diagram NOT accurately drawn



Not to scale

(3)

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Mark scheme · 2.12 Angles and Shape: Test Pack

A correct answer earns full marks unless the question asks for working, a method, proof or explanation.

Question 1

(a) acute cao	**B1**
(a) Answer: acute	
(b) obtuse cao	**B1**
(b) Answer: obtuse	
(c) straight (line) cao	**B1**
(c) Answer: straight	
(d) reflex cao	**B1**
(d) Answer: reflex	

Question 2

(a) 360 / 6 seen	**M1**
(a) 60 degrees cao	**A1**
(a) Answer: 60 degrees	
(b) 180 - their (a) seen (ft)	**M1**
(b) 120 degrees cao (ft)	**A1**
(b) Answer: 120 degrees	

Question 3

(a) equilateral cao	**B1**
(a) Answer: equilateral	
(b) right-angled isosceles cao	**B1**
(b) Answer: right-angled isosceles	
(c) scalene cao	**B1**
(c) Answer: scalene	

Question 4

360 - 92 - 88 - 105 seen (angles in a quadrilateral sum to 360 degrees)	**M1**
75 degrees cao	**A1**
Answer: x = 75 degrees	

Question 5

x + 2x + 3x = 180 seen (oe)	**M1**
x = 30 cao	**A1**
angles 30 degrees, 60 degrees and 90 degrees all correct (ft)	**A1**
Answer: x = 30; angles are 30 degrees, 60 degrees and 90 degrees	

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