

WORKSHEET 3 PROPERTIES OF 2D FIGURES - CHAPTER 7

WHAT CAN YOU SIT ON, SLEEP ON AND BRUSH YOUR TEETH WITH?



1 Name a 12 sided plane figure.

2 Label these figures as either convex, regular or non-convex?

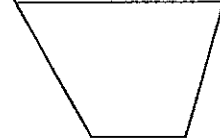
[A]



[B]

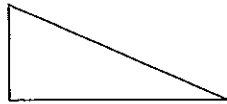


[C]

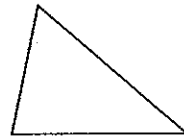


3 Name these triangles from their appearance as either acute, right or obtuse angled.

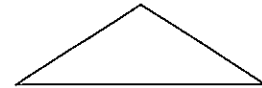
[A]



[B]

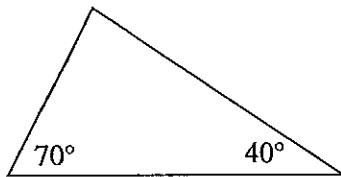


[C]

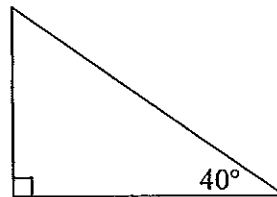


4 Which triangle is isosceles?

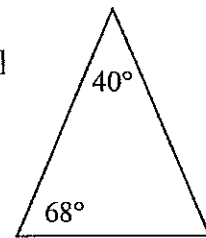
[A]



[B]

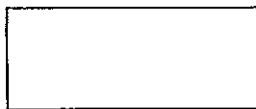


[C]

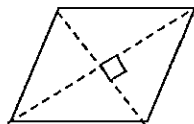


5 Name the quadrilateral shown.

(a)



(b)



(c)



6 Answer True or False to these statements.

- (a) The opposite angles of a parallelogram are equal.
- (b) The opposite angles of a rhombus are equal.
- (c) The adjacent angles of a parallelogram are supplementary.

7 Answer True or False to these statements.

- (a) All squares are kites.
- (b) All rectangles are kites.
- (c) All rhombuses are kites.

8 What order of rotational symmetry do these triangles have?

- (a) Isosceles triangle
- (b) Scalene triangle
- (c) Equilateral triangle

9 What angle is subtended at the centre of a circle bounding a regular octagon by one of the sides?

10 What is the order of rotational symmetry of:

- (a) An isosceles trapezium (b) A square (c) A rectangle.

11 Which quadrilateral is identified uniquely by this property?

(a) Diagonals perpendicular

- [A] Rectangle [B] Parallelogram [C] Rhombus [D] None of these

(b) Diagonals bisect each other.

- [A] Kite [B] Parallelogram [C] Trapezium [D] none of these

(c) One pair of opposite sides both parallel and equal

- [A] Rectangle [B] Rhombus [C] Parallelogram [D] Square

12 What ancient puzzle is derived from dividing a square into 7 geometrical shapes?

13 A semi-regular tessellation consists of

- [A] A pattern with no regular shapes that covers the plane.
 [B] A mixture of regular and irregular plane figures that cover the plane.
 [C] A mixture of different regular figures that cover the plane.
 [D] Any set of interlocking shapes that cover the plane.

14 Find the sum of the angles in these polygons. (Note that angle sums of polygons are the same whether they are regular polygons or not).

- (a) Decagon
 (b) Nonagon
 (c) Heptagon

Answers:

A	B	C	D	E	H	I	N	O
C	45°	1 4 2	Rectangle Rhombus Isosceles Trapezium	Dodecagon	A	C B C	1 1 3	Right Acute Obtuse

R	S	T	U	.
Tangram	Regular Non-convex Convex	True True True	True False True	1440° 1260° 900°

13 10 4 13 11 12 13 9 1 5 13 8 5 13

6 3 3 6 4 9 12 7 2 4 15