

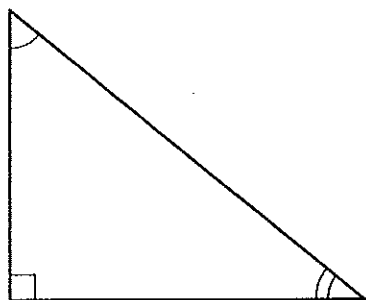
**Test Yourself Chapter 3 Plane and solid shapes**

Name: \_\_\_\_\_

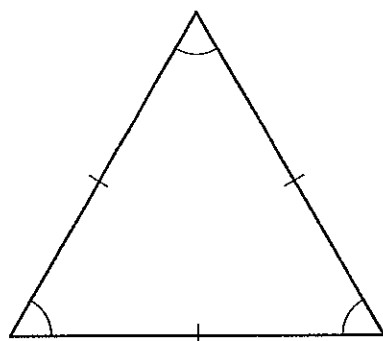
*All Multiple Choice*

**1** An equilateral triangle is shown next to the letter:

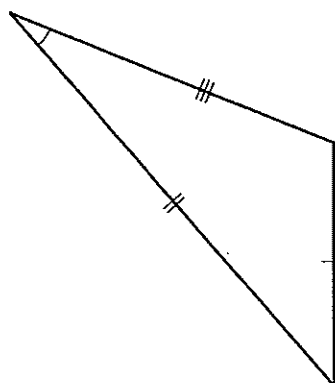
A



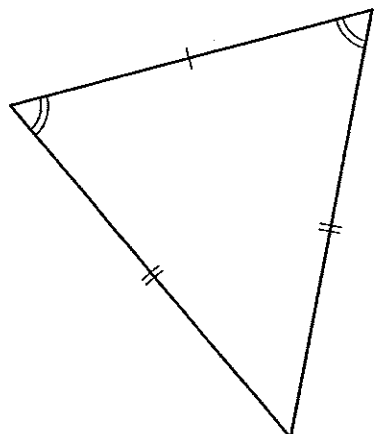
B



C

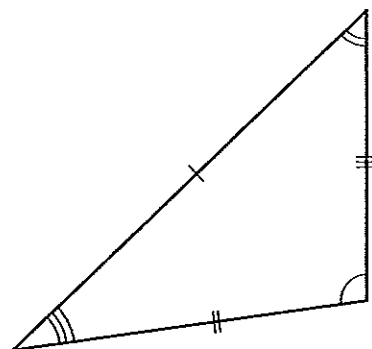


D

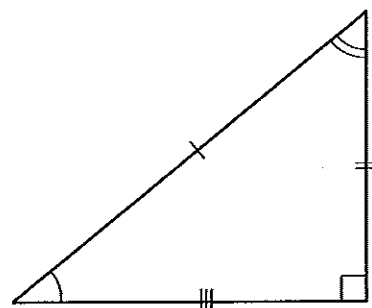


**2** The triangle which *is not* scalene is:

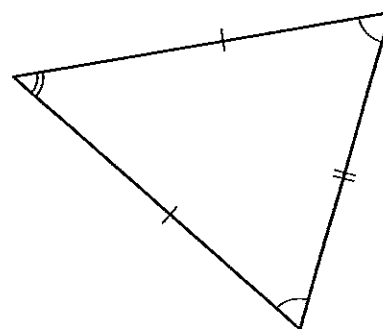
A



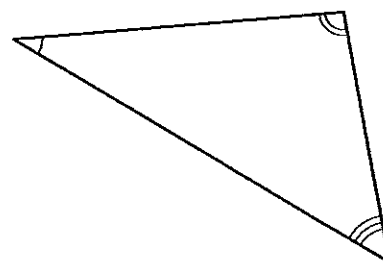
B



C

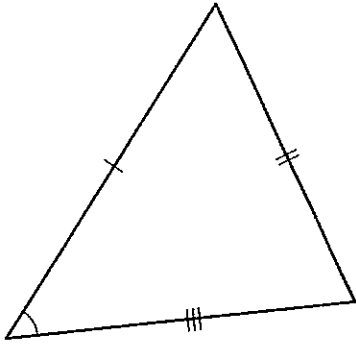


D

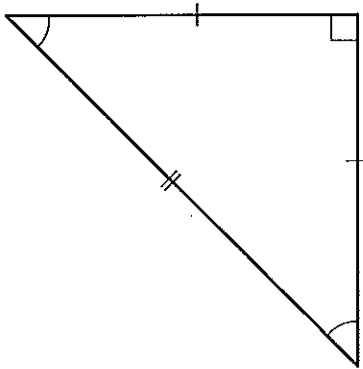


3 The triangle which has an obtuse angle is:

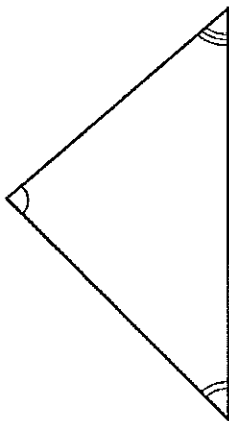
A



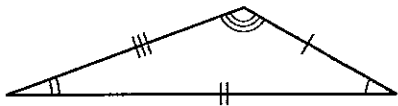
B



C

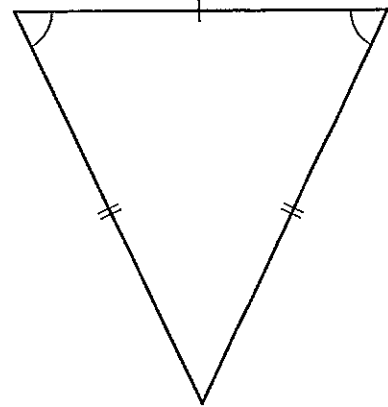


D

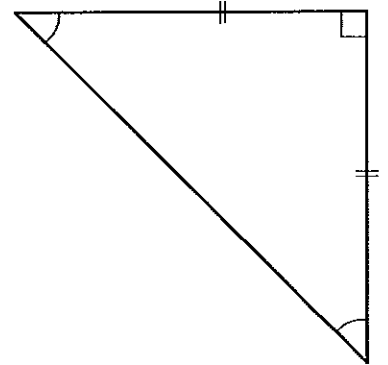


4 The triangle which is both acute-angled and isosceles is:

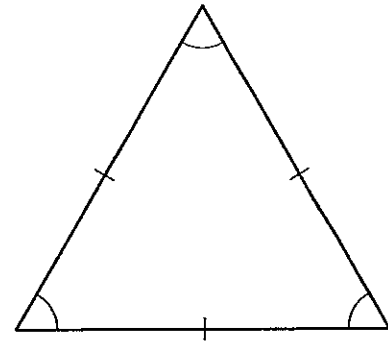
A



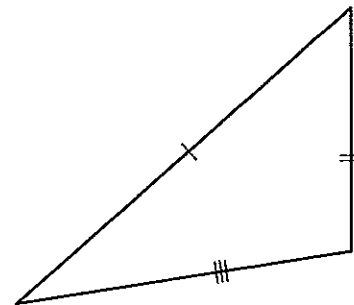
B



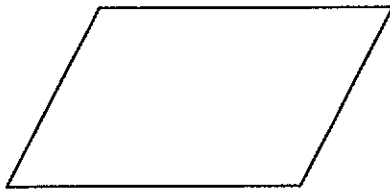
C



D



5 The quadrilateral shown is a:



- A rectangle
- B rhombus
- C kite
- D parallelogram

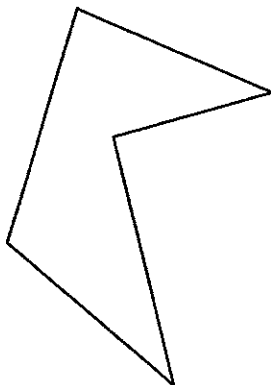
6 An octagon has the following number of sides.

- A 5
- B 6
- C 7
- D 8

7 The name given to a polygon with eleven sides is a:

- A dodecagon
- B pentagon
- C undecagon
- D decagon

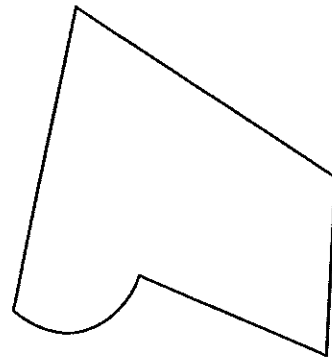
8 The name given to the polygon below is:



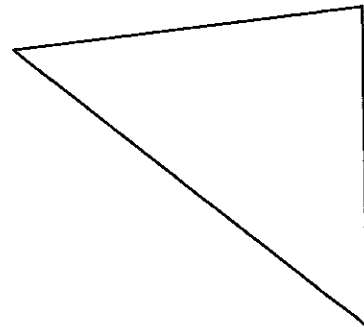
- A quadrilateral
- B hexagon
- C heptagon
- D pentagon

9 The shape which *is not* a polygon is:

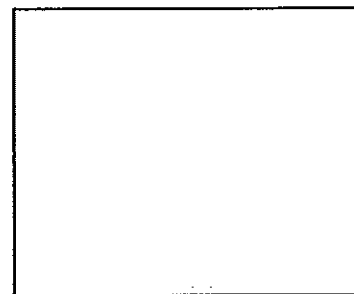
A



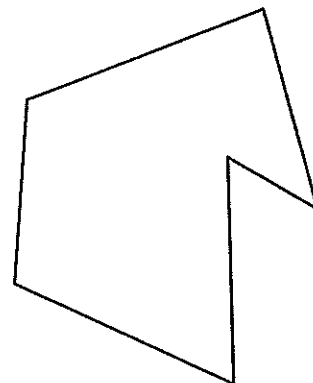
B



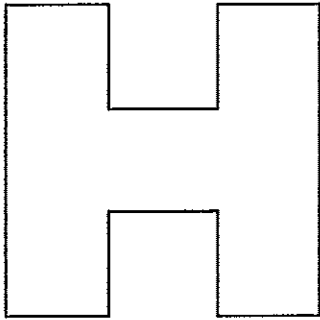
C



D

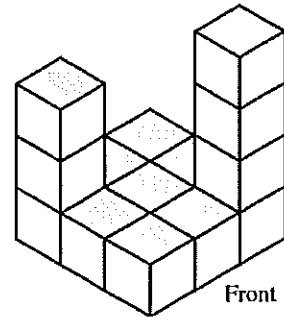


10 The polygon formed by the letter H shown below is a:



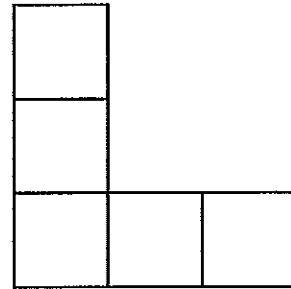
- A nonagon
- B decagon
- C undecagon
- D dodecagon

11

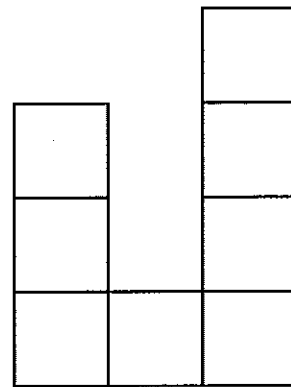


The left side view of the above figure would be:

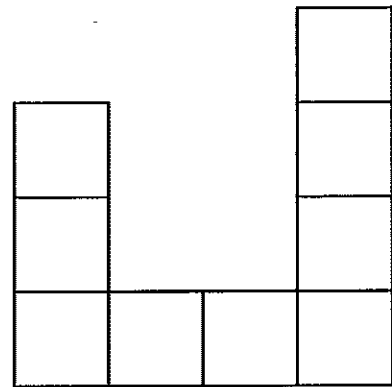
A



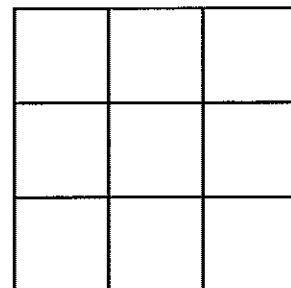
B



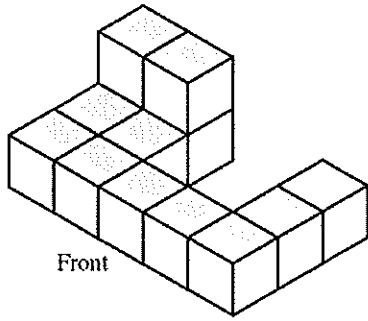
C



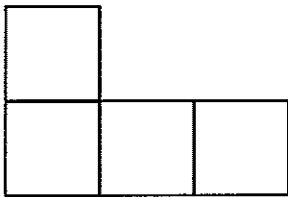
D



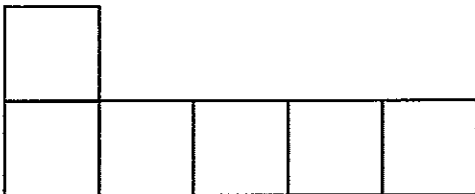
12 The top view of this figure would be:



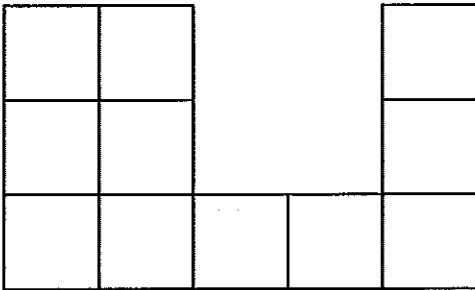
A



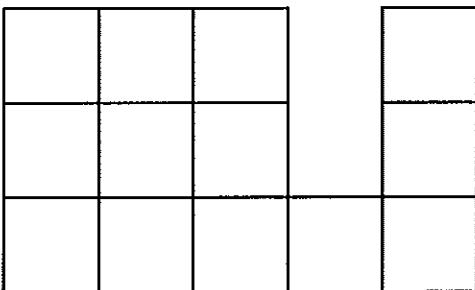
B



C



D



13 A polygon with 8 faces and 4 vertices must have the following number of edges.

- A 4
- B 6
- C 10
- D 12

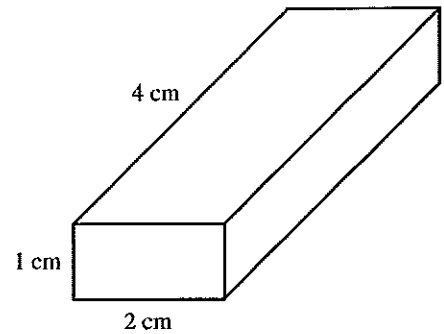
14 A polygon with 5 vertices and 7 edges must have the following number of faces.

- A A 4
- B B 5
- C C 6
- D D 7

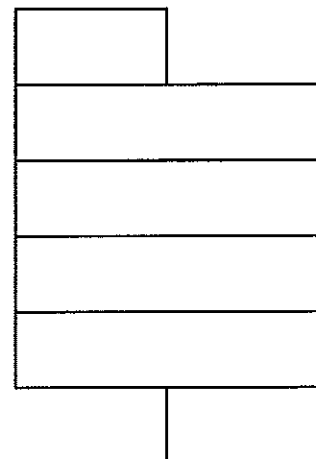
15 A polygon with 7 faces and 10 edges must have the following number of vertices.

- A 4
- B 5
- C 6
- D 7

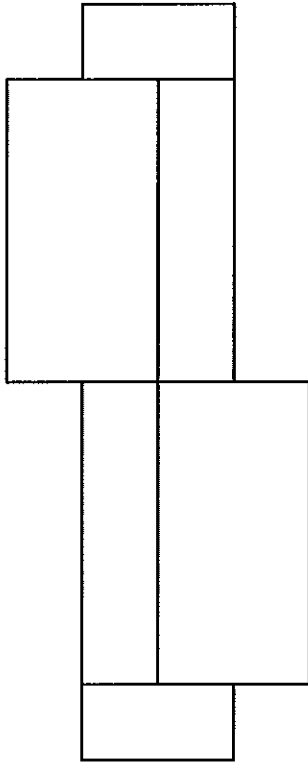
16 The net of this figure would be:



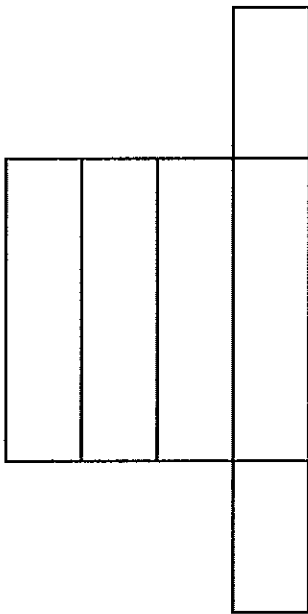
A



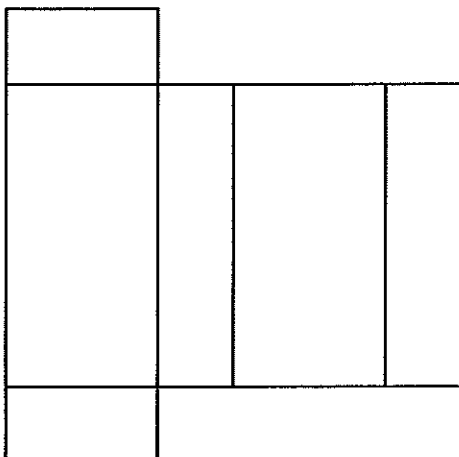
B



C



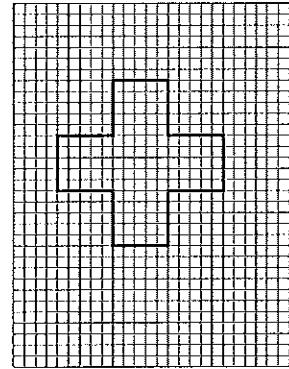
D



17 The letter Y has the following number of axes of symmetry:

- A 0
- B 1
- C 2
- D 3

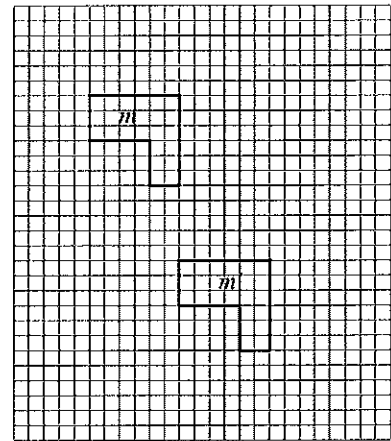
18



The figure above has the following number of axes of symmetry:

- A 1
- B 2
- C 3
- D 4

19



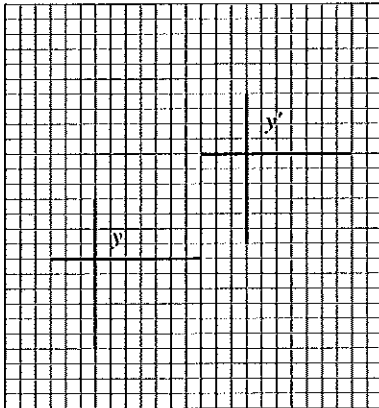
The translation shown above is:

- A 11 units left, 6 up
- B 6 units right, 11 down
- C 6 units left, 11 up
- D 10 units down, 6 right

20 A single translation that would have taken the object from its starting point to its final position for the translation 8 units left, 2 down, 4 right, 3 up, 4 left, 6 up would be:

- A 0 units left, 7 up
- B 16 units right, 11 up
- C 7 units up, 8 left
- D 12 units down, 4 right

21

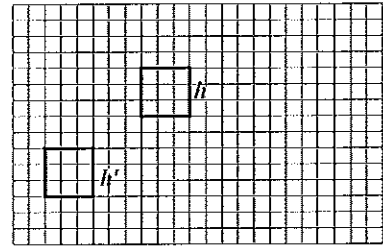


The translation shown above is:

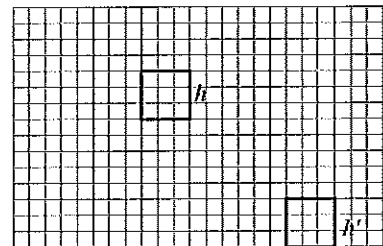
- A 10 units right, 7 up
- B 10 units left, 7 up
- C 7 units up, 10 down
- D 7 units left, 10 up

22 The object  $h$  has undergone a translation of 5 units down, 6 right. The image  $h'$  would appear as:

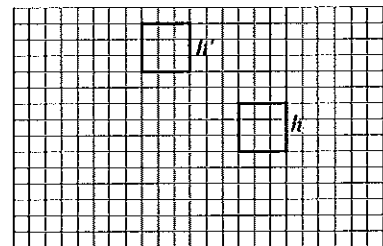
A



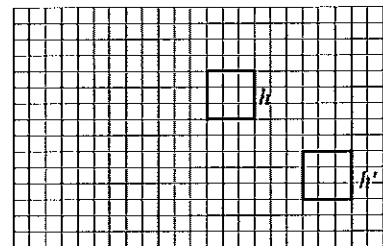
B



C

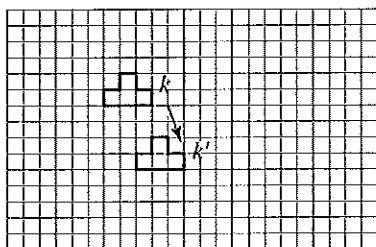


D

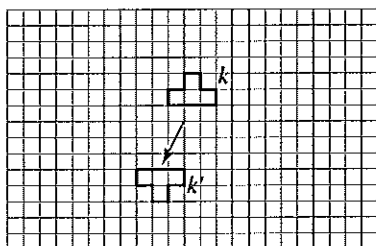


23 The object  $k$  has undergone a translation of 4 units up, 3 right, 2 down, 5 right, 2 up, 10 left. The image  $k'$  would appear as:

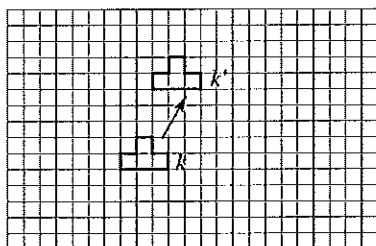
A



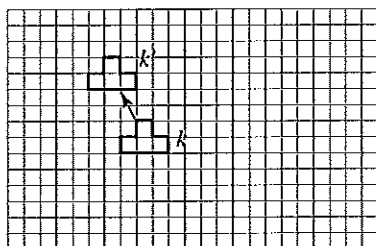
B



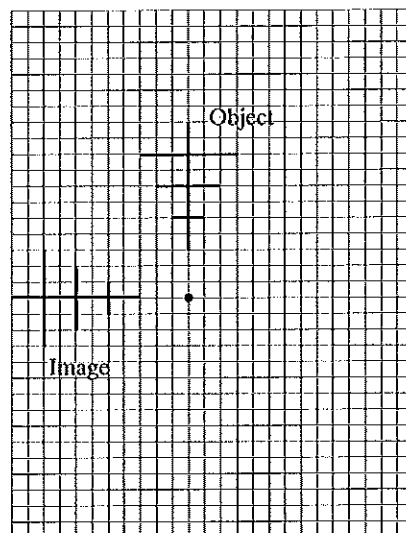
C



D



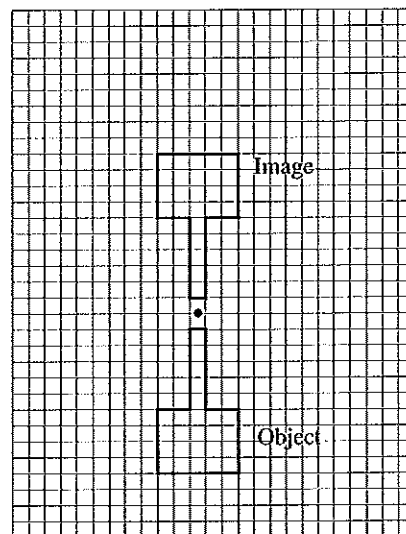
24



The rotation about the dot that has taken place in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $\frac{1}{4}$  turn anticlockwise
- C  $\frac{1}{2}$  turn clockwise
- D full turn

25

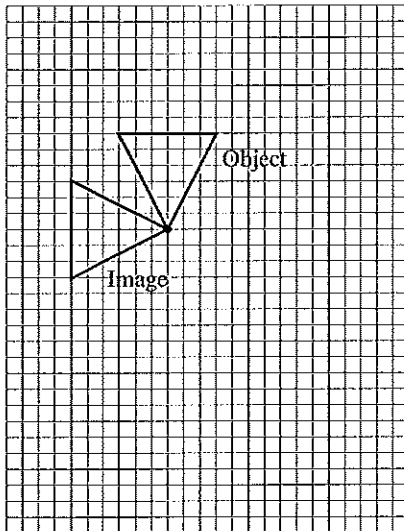


The rotation about the dot that has taken place in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $\frac{1}{4}$  turn anticlockwise
- C  $\frac{1}{2}$  turn clockwise
- D  $\frac{3}{4}$  turn anticlockwise



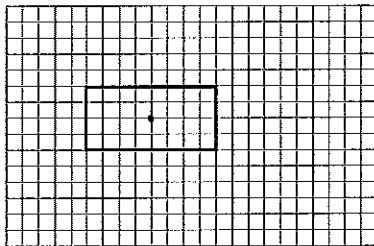
26



The clockwise rotation that has taken place in the figure above is:

- A  $45^\circ$
- B  $90^\circ$
- C  $135^\circ$
- D  $270^\circ$

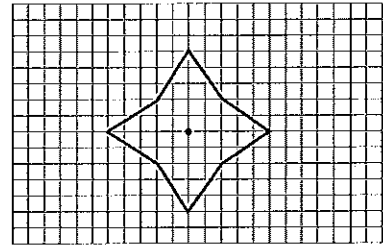
27



The smallest rotation that is needed for the image to be the same as the object in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $90^\circ$
- C  $\frac{1}{2}$  turn
- D full turn

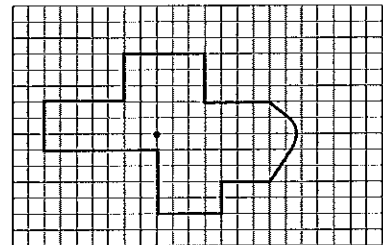
28



The smallest rotation needed for the image to be the same as the object in the figure above is:

- A  $45^\circ$
- B  $\frac{1}{4}$  turn
- C  $135^\circ$
- D  $\frac{1}{2}$  turn

29



The smallest rotation needed for the image to be the same as the object in the figure above is:

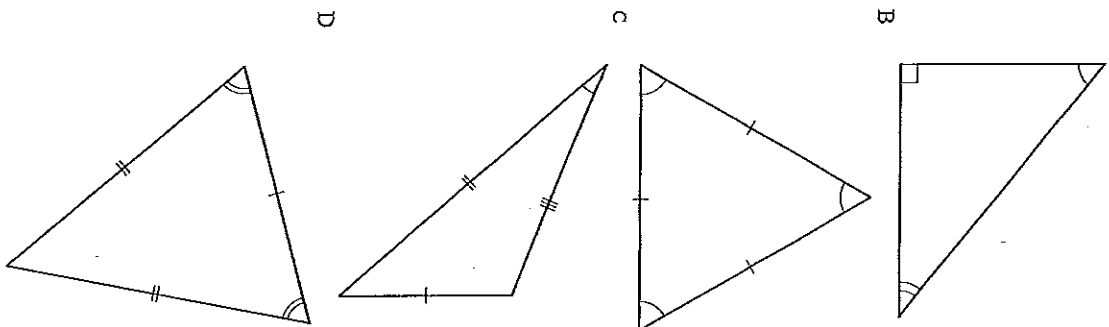
- A  $45^\circ$
- B  $\frac{1}{4}$  turn
- C  $\frac{1}{2}$  turn
- D full turn

**Test Yourself Chapter 3 Plane and solid shapes**

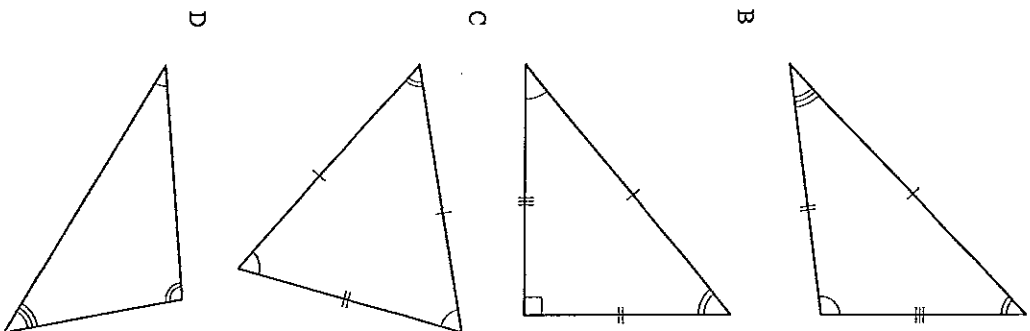
*All Multiple Choice*

Name: \_\_\_\_\_

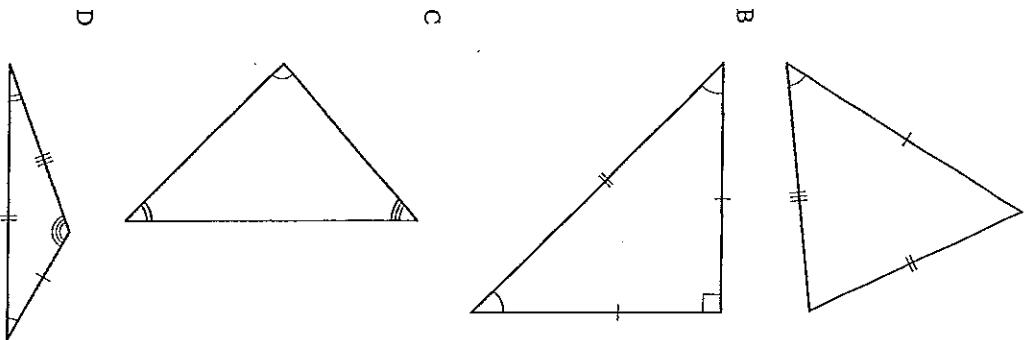
1 An equilateral triangle is shown next to A the letter:



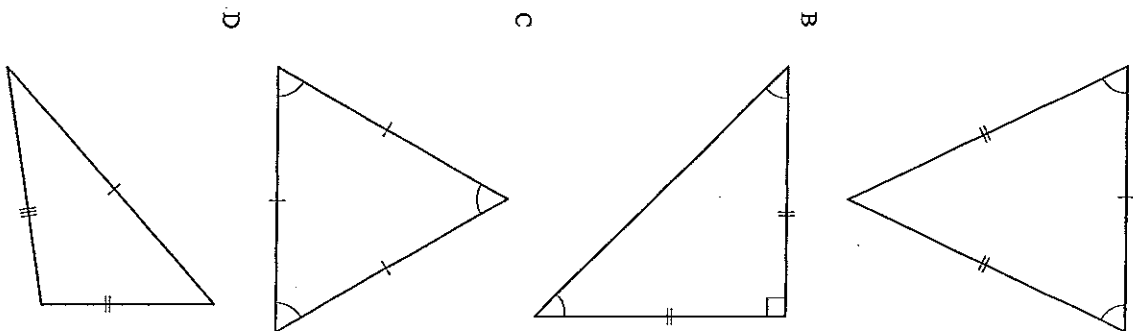
2 The triangle which is *not* scalene is: C



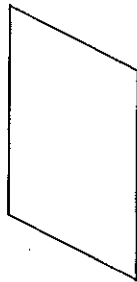
3 The triangle which has an obtuse angle is: D



4 The triangle which is both acute-angled and isosceles is: A



5 The quadrilateral shown is a:



- A rectangle
- B rhombus
- C kite
- D parallelogram

D

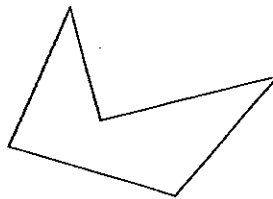
6 An octagon has the following number of sides.

- A 5
- B 6
- C 7
- D 8

7 The name given to a polygon with eleven sides is a:

- A dodecagon
- B pentagon
- C undecagon
- D decagon

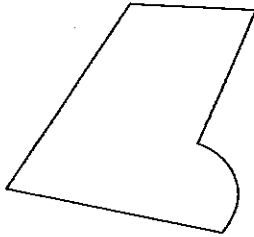
8 The name given to the polygon below is:



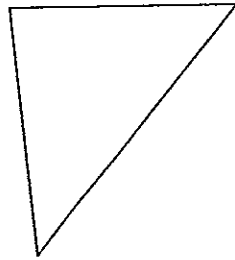
- A quadrilateral
- B hexagon
- C heptagon
- D pentagon

9 The shape which is *not* a polygon is:

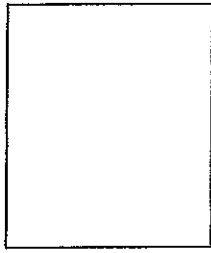
A



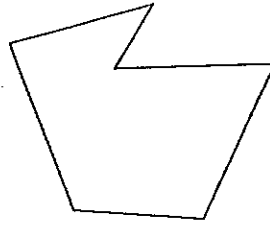
B



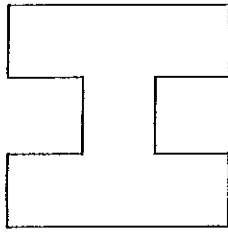
C



D



10 The polygon formed by the letter H shown below is a:

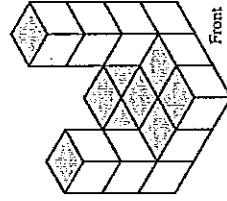


- A nonagon
- B decagon
- C undecagon
- D dodecagon

D

11

B



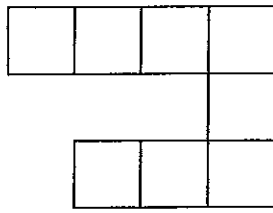
Front

The left side view of the above figure would be:

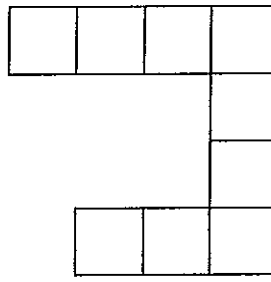
A



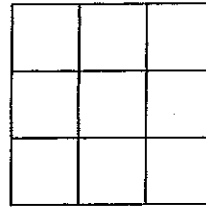
B



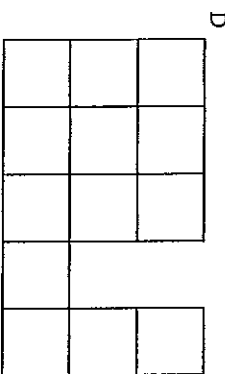
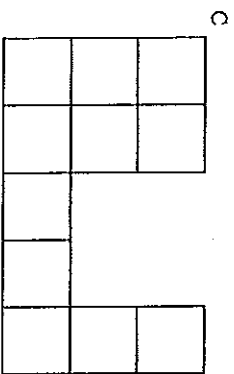
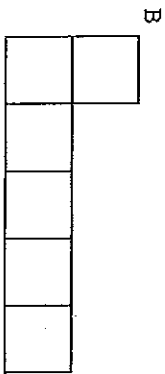
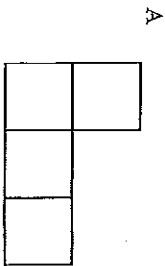
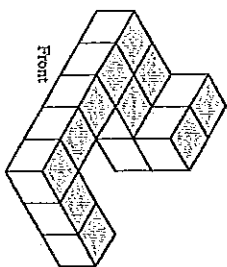
C



D



12 The top view of this figure would be:



13 A polygon with 8 faces and 4 vertices must have the following number of edges.

- A 4
- B 6
- C 10
- D 12

C

B

14 A polygon with 5 vertices and 7 edges must have the following number of faces.

- A 4
- B 5
- C 6
- D 7

A

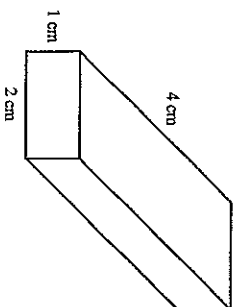
15 A polygon with 7 faces and 10 edges must have the following number of vertices.

- A 4
- B 5
- C 6
- D 7

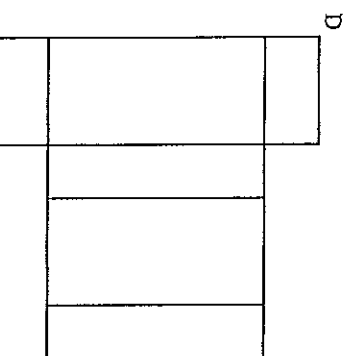
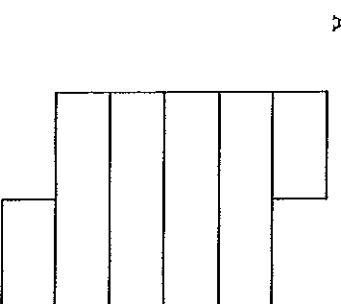
B

C

16 The net of this figure would be:



D

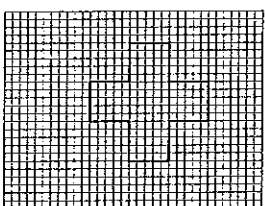


17 The letter Y has the following number of axes of symmetry:

- A 0
- B 1
- C 2
- D 3

B

18

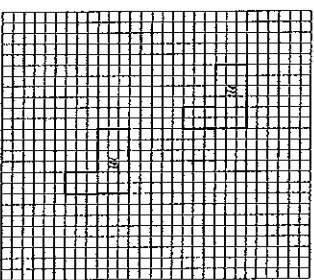


D

The figure above has the following number of axes of symmetry:

- A 1
- B 2
- C 3
- D 4

19

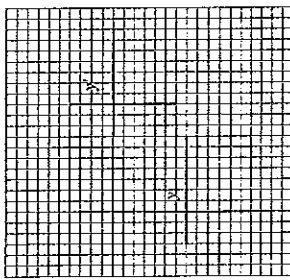


B

The translation shown above is:

- A 11 units left, 6 up
- B 6 units right, 11 down
- C 6 units left, 11 up
- D 10 units down, 6 right

- 20 A single translation that would have taken the object from its starting point to its final position for the translation 8 units left, 2 down, 4 right, 3 up, 4 left, 6 up would be:
- A 0 units left, 7 up
  - B 16 units right, 11 up
  - C 7 units up, 8 left
  - D 12 units down, 4 right

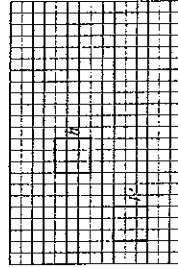


21

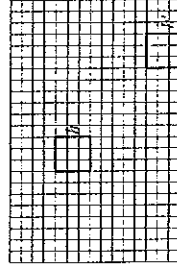
The translation shown above is:

- A 10 units right, 7 up
- B 10 units left, 7 up
- C 7 units up, 10 down
- D 7 units left, 10 up

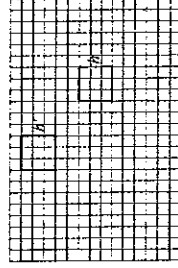
- 22 The object  $h$  has undergone a translation. D of 5 units down, 6 right. The image  $h'$  would appear as:



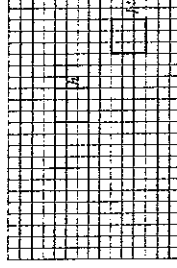
A



B

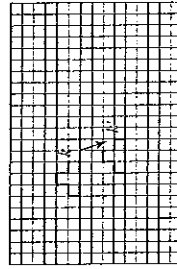


C

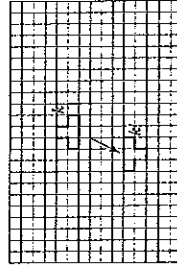


D

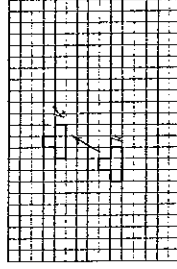
- 23 The object  $k$  has undergone a translation of 4 units up, 3 right, 2 down, 5 right, 2 up, 10 left. The image  $k'$  would appear as:



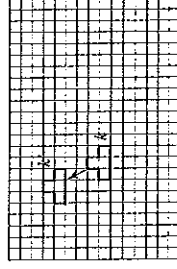
A



B



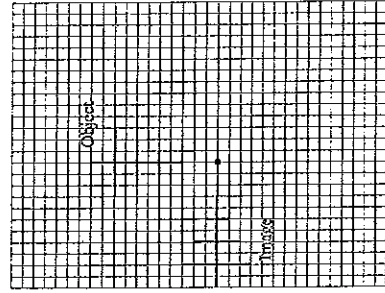
C



D

24

B

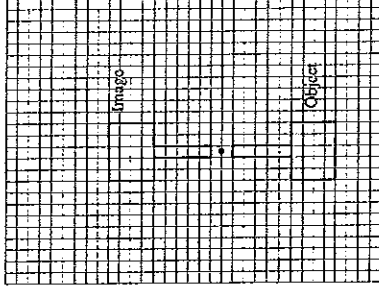


The rotation about the dot that has taken place in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $\frac{1}{4}$  turn anticlockwise
- C  $\frac{1}{2}$  turn clockwise
- D full turn

25

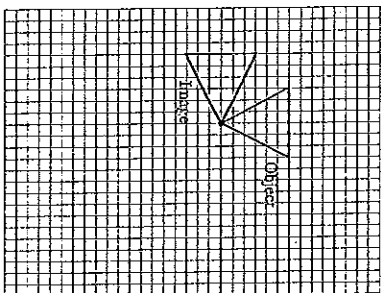
C



The rotation about the dot that has taken place in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $\frac{1}{4}$  turn anticlockwise
- C  $\frac{1}{2}$  turn clockwise
- D  $\frac{3}{4}$  turn anticlockwise

26

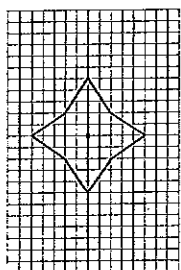


D

The clockwise rotation that has taken place in the figure above is:

- A  $45^\circ$
- B  $90^\circ$
- C  $135^\circ$
- D  $270^\circ$

28

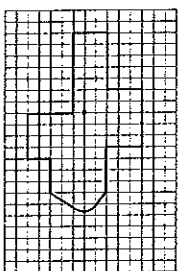


B

The smallest rotation needed for the image to be the same as the object in the figure above is:

- A  $45^\circ$
- B  $\frac{1}{4}$  turn
- C  $135^\circ$
- D  $\frac{1}{2}$  turn

29

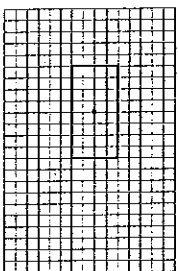


D

The smallest rotation needed for the image to be the same as the object in the figure above is:

- A  $45^\circ$
- B  $\frac{1}{4}$  turn
- C  $\frac{1}{2}$  turn
- D full turn

27



C

The smallest rotation that is needed for the image to be the same as the object in the figure above is:

- A  $\frac{1}{4}$  turn clockwise
- B  $90^\circ$
- C  $\frac{1}{2}$  turn
- D full turn