

Name:

Exam Style Questions

3D Shapes

Edges, Faces, Vertices



Corbettmaths

Equipment needed: Pencil, ruler & pen

### Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

Videos 3, 5



Answers and Video Solutions



1. The names of five solid shapes are given.



triangular prism    sphere    cube    cuboid    cylinder

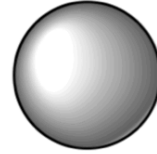
Three of them are drawn below.



**A**



**B**



**C**

Complete these statements.

Shape A is called a .....

Shape B is called a .....

Shape C is called a .....

**(3)**

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2. (a) How many faces does a cube have?

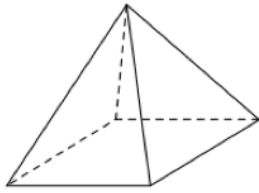


.....  
**(1)**

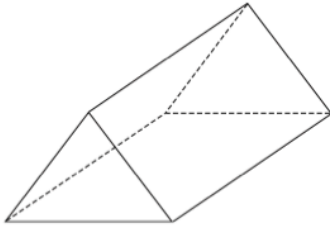
(b) Sketch a cube.

**(1)**

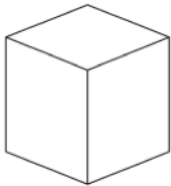
3. Below is a list of solid shapes and their names.



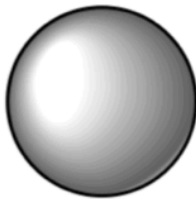
Sphere



Triangular Prism



Square-based Pyramid

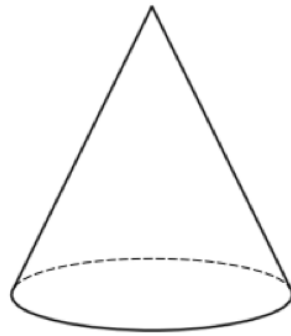


Cube

Match each shape to the correct name.

(4)

4. Shown is a solid shape.



(a) What is the mathematical name for the shape?

.....  
**(1)**



The shape above is a cuboid.

(b) How many faces does a cuboid have?

.....  
**(1)**

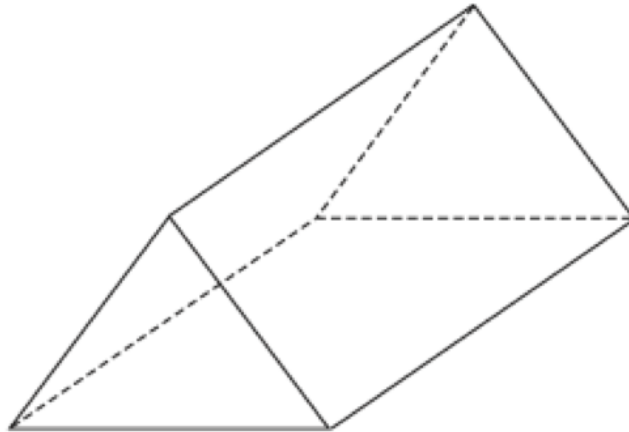
(c) How many edges does a cuboid have?

.....  
**(1)**

(d) How many vertices does a cuboid have?

.....  
**(1)**

5. Below is a solid shape.



(a) What is the mathematical name for the shape?

.....  
**(1)**

(b) Write down the number of vertices

.....  
**(1)**

(c) Write down the number of faces

.....  
**(1)**

(d) Write down the number of edges

.....  
**(1)**

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6. Circle the solid that has 5 vertices.



Cube

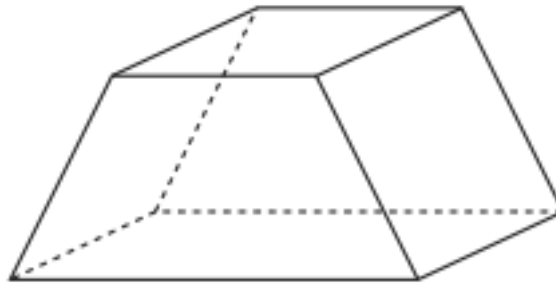
Triangular Prism

Square-based Pyramid

Cylinder

**(1)**

7. Below is a solid.



(a) Write down the number of faces

.....  
(1)

(b) Write down the number of vertices

.....  
(1)

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8. How many vertices does a pentagonal prism have?



5                      10                      15                      20

(1)

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9. Circle the solid that has 6 faces.



pentagonal prism

pentagon-based pyramid

hexagonal prism

hexagon-based pyramid

(1)

10. Circle the solid that has 18 edges.



pentagonal prism

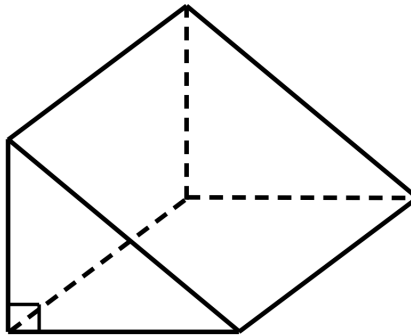
pentagon-based pyramid

hexagonal prism

hexagon-based pyramid

(1)

11.



Shown above is a triangular prism.

Archie says

“the number faces add the number of vertices is 2 more than the number of edges.”

Show Archie is correct.

.....

.....

(2)

12. Complete the table below.



	Faces	Edges	Vertices
Cube			8
Square-based Pyramid	5		
Triangular Prism		9	

(6)

13. The cross section of a prism is an  $n$  sided polygon.



Circle the number of edges that the prism has.

$2n$

$n + 2$

$n + 3$

$3n$

(1)

14. The cross section of a prism is an  $n$  sided polygon.



Circle the number of faces that the prism has.

$2n$

$n + 2$

$n + 3$

$3n$

(1)

15. The cross section of a prism is an  $n$  sided polygon.



Circle the number of vertices that the prism has.

$2n$

$n + 2$

$n + 3$

$3n$

---

(1)

16. The base of a pyramid is an  $n$  sided polygon.



Circle the number of edges that the pyramid has.

$n$

$n + 1$

$n + 2$

$2n$

---

(1)

17. The base of a pyramid is an  $n$  sided polygon.



Circle the number of faces that the pyramid has.

$n$

$n + 1$

$n + 2$

$2n$

---

(1)

18. The base of a pyramid is an  $n$  sided polygon.



Circle the number of vertices that the pyramid has.

$n$

$n + 1$

$n + 2$

$2n$

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(1)