

Lesson 10.1 – The Geometry of Solids

1) The cylinder is (oblique, right).

The cylinder is oblique because the axis does not make a right angle with the radius.

2) \overline{OP} is _____ of the cylinder.

\overline{OP} is the axis of the cylinder.

3) \overline{TR} is _____ of the cylinder.

\overline{TR} is the altitude (or height) of the cylinder.

4) Circles O and P are _____ of the cylinder.

Circles O and P are the bases of the cylinder.

5) \overline{PQ} is _____ of the cylinder.

\overline{PQ} is the radius of the cylinder.

6) The cone is (oblique, right).

The cone is right because the altitude connects the vertex of the cone to the center of the base circle.

7) Name the base of the cone.

The base of the cone is circle C .

8) Name the vertex of the cone.

The vertex of the cone is A .

9) Name the altitude of the cone.

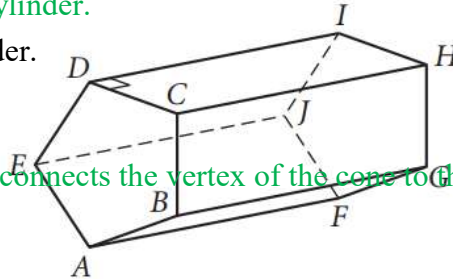
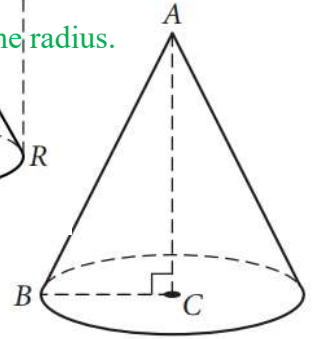
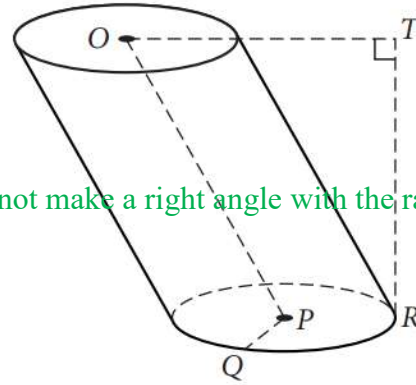
The altitude of the cone is \overline{AC} .

10) Name a radius of the cone.

A radius of the cone is \overline{BC} .

11) Name the type of prism.

The prism is a right pentagonal prism.



12) Name the bases of the prism.

The bases of the prism are $ABCDE$ and $GHIJF$.

13) Name all lateral edges of the prism.

The lateral edges of the prism are \overline{AF} , \overline{BG} , \overline{CH} , \overline{DI} , \overline{EJ} .

14) Name an altitude of the prism.

Since the prism is a right prism, any of the lateral edges can be an altitude, so \overline{AF} , \overline{BG} , \overline{CH} , \overline{DI} or \overline{EJ} .

Tell whether each statement is true or false. If the statement is false, explain why it is false.

15) The axis of a cylinder is perpendicular to the base.

False. The axis of a cylinder is only perpendicular to the base when it is a right cylinder.

16) A rectangular prism has four faces.

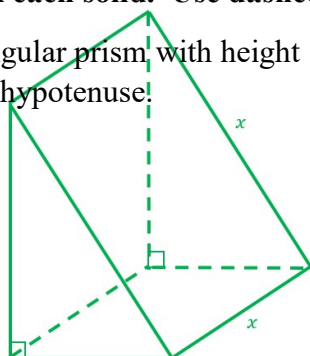
False. A rectangular prism has six faces.

17) The bases of a trapezoidal prism are trapezoids.

True.

Draw and label each solid. Use dashed lines to show hidden edges.

18) A right triangular prism with height equal to the hypotenuse!



19) An oblique trapezoidal pyramid

