Middle and High: Perimeter, Area, Surface Area, and Volume Assessment

1. In the formula to determine area of a triangle, height equals the length of
   a. The base
   b. The altitude
   c. ∏
   d. Vertex

Correct feedback: Yes, the height equals the length of the altitude

Incorrect feedback: Nice try! Height equals the length of the altitude. Please review the finding the area of a triangle PowerPoint.

2. A two dimensional representation of all the faces of a prism is called?
   a. Diameter
   b. Surface area
   c. Net
   d. Circumference

Correct feedback: Yes, a two dimensional representation of all the faces of a prism is called a net

Incorrect feedback: Sorry, a two dimensional representation of all the faces of a prism is called a net. Please review the vocabulary for middle school students.

3. The formula to find area of a circle is
   a. A=1/2bh
   b. A=lw
   c. A=1/3bh + ∏
   d. $A=\prod r^2$

Correct feedback: Yes! The formula for area of a circle is $A=\prod r^2$

Incorrect feedback: Sorry, the formula for area of a circle is $A=\prod r^2$ Please review the finding the area of a circle PowerPoint.

4. The definition of surface area is
   a. the sum of the area of all the faces of an object
   b. The space inside a two dimensional polygon
   c. The amount of space inside a three dimensional object
   d. The amount of space one face of a three dimensional object

Correct feedback: Yes, the definition of surface area is the sum of the area of all the faces of an object.

Incorrect feedback: Sorry, the definition of surface area is the sum of the area of all the faces of an object. Please review the definitions found in the "Time for take off" section.

5. The radius of a circle is _____ of the diameter
   a. One third
   b. The length
   c. Half
   d. Double

Correct feedback: Yes, the radius of a circle is half the diameter.

Incorrect feedback: Sorry, the radius of a circle is half the diameter. Please review the finding the area of a circle PowerPoint.

6. What is the area of a triangle with a height of 5cm and a base of 10cm?
   a. $20cm^2$
   b. $25cm^2$
   c. $20\ cm^3$
   d. $25cm^3$

Correct feedback: Yes, the answer is $25cm^2$

Incorrect feedback: Sorry, the answer is $25cm^2$. Please review the area of a triangle PowerPoint.

7. What is the approximate area of a circle with a diameter of 8cm?
   a. $200.95\ cm^2$
   b. $50.24\ cm^2$
   c. $64\ cm^2$
   d. $25.12\ cm^2$

Correct feedback: Yes, the approximate area of the circle is $50.24\ cm^2$

Incorrect feedback: Sorry, the approximate area of the circle is $50.24\ cm^2$. Please review the finding the area of a circle PowerPoint

8. What is the surface area for a cube with a length of 6cm?
   a. $72\ cm^3$
   b. $72\ cm^2$
   c. $216\ cm^3$
   d. $216\ cm^2$

Correct feedback: Yes, the surface area is $216\ cm^2$

Incorrect feedback: Sorry the surface area is $216\ cm^2$. Please review the finding the surface area of a three dimensional object PowerPoint.

9. A sector is the region of a circle bound by
    a. A right angle
    b. The radius and diameter
    c. Two radii and an arc
    d. An intercepted arc

    Correct feedback: Yes! A sector is the region of a circle bound by two radii and an arc

    Incorrect feedback: Sorry! A sector is the region of a circle bound by two radii and an arc. Please review the finding the area of a sector PowerPoint

10. What is the approximate area of a sector which a radius of 3cm and an arc of 60^o
    a. 6.45 cm^2
    b. 10 cm^2
    c. 4.71 cm^2
    d. 3.13 cm^2

    Correct feedback: Yes, the approximate are of the sector is 4.71 cm^2

    Incorrect feedback: Sorry, the approximate area of the sector is 4.71 cm^2. Please review the finding the area of a sector of a circle PowerPoint.