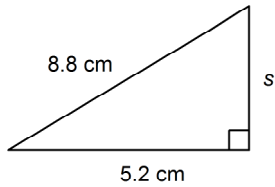


MATH 9 - Final Review - Unit 1

1. Name 2 decimals that have square roots between 2.6 and 2.7.

2. Determine the length of side s .



3. To estimate the value of $\sqrt{159.5}$, determine the two whole number perfect squares closest to 159.5 and their square roots.

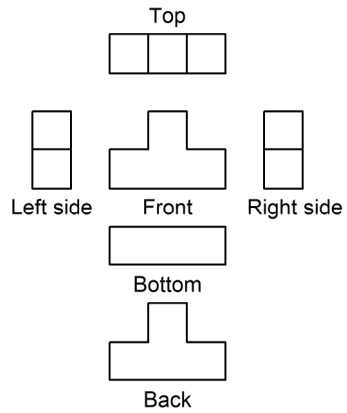
4. To estimate the value of $\sqrt{\frac{1580}{20}}$, determine the two whole number perfect squares closest to $\frac{1580}{20}$ and their square roots.

5. Determine the value of $\sqrt{0.27}$, to the nearest tenth.

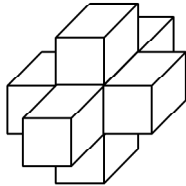
6. Approximate $\sqrt{\frac{19}{14}}$ to the nearest tenth.

7. A square has an area of 8.9 cm^2 .
Determine the side length of the square, to the nearest millimetre.

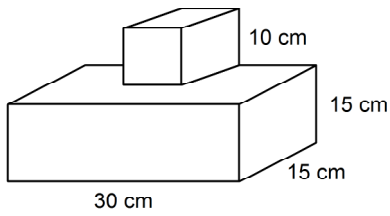
8. Here are the 6 views of an object made using centimetre cubes. Determine its surface area.



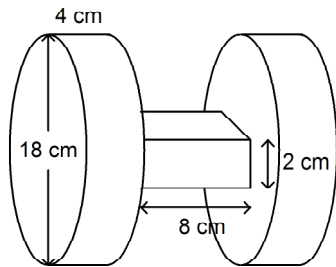
9. This composite object is made using centimetre cubes. Determine its surface area.



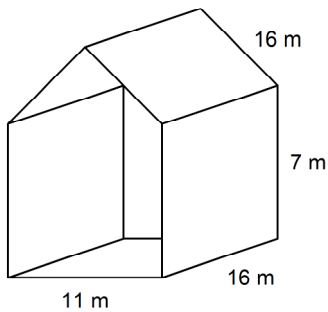
10. This object is composed of a cube on top of a right rectangular prism. Determine the surface area of the object.



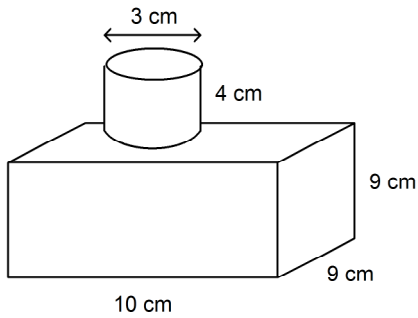
11. This object is composed of two identical cylinders connected by a right rectangular prism. Each cylinder has diameter 18 cm and height 4 cm. The rectangular prism has length 8 cm and square ends of side length 2 cm. Determine the surface area of the object. Give your answer to the nearest whole number.



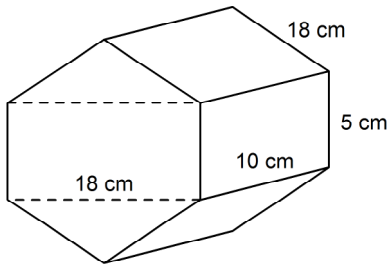
12. A shed is open at both ends. The walls and roof will be painted inside and outside. What is the area that needs to be painted?



13. Determine the surface area of this composite object, to the nearest square centimetre.
 The cylinder has diameter 3 cm and height 4 cm.
 The prism has length 10 cm, width 9 cm, and height 9 cm.



14. This object is composed of a right rectangular prism with two congruent triangular prisms attached, one to the top and the other to bottom.
 Determine the surface area of the object, to the nearest square centimetre.



MATH 9 - Final Review - Unit 1

Answer Section

SHORT ANSWER

1. ANS:

Any decimal between 6.76 and 7.29

For example: 7.03 and 7.08

DIF: Moderate

2. ANS:

The length of side s is about 7.1 cm.

DIF: Moderate

3. ANS:

144 and 169

$$\sqrt{144} = 12$$

$$\sqrt{169} = 13$$

DIF: Easy

4. ANS:

64 and 81

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

DIF: Easy

5. ANS:

$$\sqrt{0.27} \doteq 0.5$$

DIF: Easy

6. ANS:

$$\sqrt{\frac{19}{14}} \doteq 1.2$$

DIF: Easy

7. ANS:

$$\sqrt{8.9} \doteq 3.0$$

The side length of the square is about 3.0 cm.

DIF: Moderate

8. ANS:

The surface area of the object is 18 cm².

DIF: Easy

9. ANS:
The surface area of the object is 30 cm².

DIF: Easy

10. ANS:
The surface area of the composite object is 2650 cm².

DIF: Moderate

11. ANS:
The surface area of the object is about 1526 cm².

DIF: Moderate

12. ANS:
The area that needs to be painted is about 1472 m².

DIF: Moderate

13. ANS:
The surface area of the object is about 560 cm².

DIF: Moderate

14. ANS:
The surface area of the object is about 1561 cm².

DIF: Moderate