

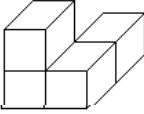
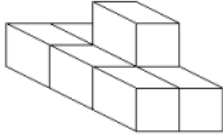
Name: _____ Class: _____ Date: _____

ID: A

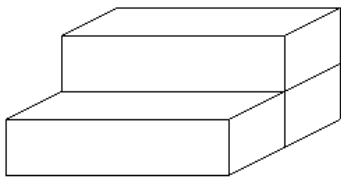
Chapter 1 Test Review

Multiple Choice

Identify the choice that best completes the statement or answers the question.

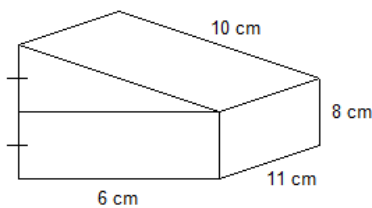
1. Determine the value of $\sqrt{2.56}$.
- 0.64
 - 1.6
 - 0.16
 - 0.8
2. Calculate the number whose square root is 8.1.
- 32.4
 - 65.61
 - 0.9
 - 81
3. Which decimal has a square root between 15 and 16?
- 272.3
 - 196
 - 15.5
 - 233.5
- iv
 - i
 - ii
 - iii
4. Which fraction has a square root between 3 and 4?
- $\frac{61}{7}$
 - $\frac{42}{5}$
 - $\frac{53}{5}$
 - $\frac{60}{7}$
- i
 - iv
 - ii
 - iii
5. Estimate the value of $\sqrt{0.95}$, to the nearest tenth.
- 0.9
 - 0.97
 - 1.0
 - 0.3
6. A square has an area of 27.8 cm^2 . Determine the side length of the square, to the nearest millimetre.
- 5.27 cm
 - 5 cm
 - 5.2 cm
 - 5.3 cm
7. The lengths of the two legs of a right triangle are 6.5 cm and 3.2 cm. Determine the length of the hypotenuse to 1 decimal place.
- 3.1 cm
 - 7.2 cm
 - 5.7 cm
 - 52.5 cm
8. This composite object is made using centimetre cubes. Determine its surface area.
- 
- 24 cm^2
 - 20 cm^2
 - 15 cm^2
 - 18 cm^2
9. This object is made from 7 centimetre cubes. Determine its surface area.
- 
- 20 cm^2
 - 28 cm^2
 - 42 cm^2
 - 26 cm^2

10. This object is made from 3 identical right rectangular prisms. Each prism is 65 cm long and has square ends of side length 20 cm. What is the surface area of the object?



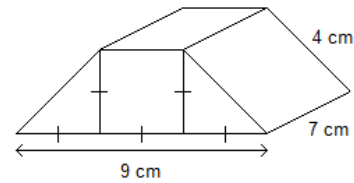
- a. 10 200 cm²
- b. 18 000 cm²
- c. 12 800 cm²
- d. 11 600 cm²

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

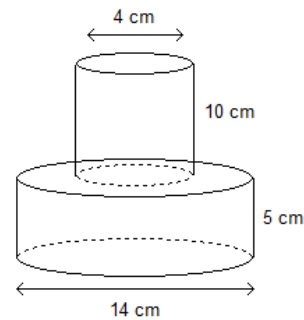


- a. 342 cm²
- b. 584 cm²
- c. 728 cm²
- d. 518 cm²

12. This object is composed of two right triangular prisms and a right rectangular prism. Determine the surface area of the object.

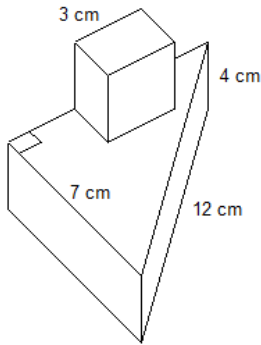


- a. 176 cm²
 - b. 113 cm²
 - c. 158 cm²
 - d. 212 cm²
13. This object is composed of a cylinder of diameter 4 cm and height 10 cm on top of another cylinder of diameter 14 cm and height 5 cm. Determine the surface area of the object, to the nearest square centimetre.



- a. 500 cm²
- b. 657 cm²
- c. 661 cm²
- d. 653 cm²

14. A 3-cm cube is attached to the top of a right triangular prism as shown. Determine the surface area of the composite object, to the nearest square centimetre.

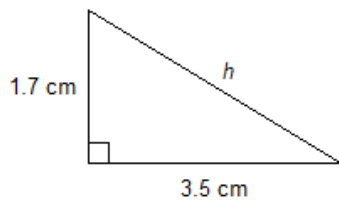


- a. 219 cm²
- b. 185 cm²
- c. 228 cm²
- d. 210 cm²

15. Determine the value of $\sqrt{0.25}$.
- a. 0.05
 - b. 0.125
 - c. 0.5
 - d. 0.0625

Short Answer

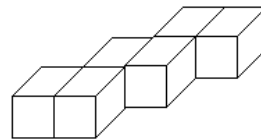
18. Determine the value of $\sqrt{2.89}$.
19. Determine the value of $\sqrt{\frac{289}{361}}$.
20. Determine the value of $\sqrt{0.27}$, to the nearest tenth.



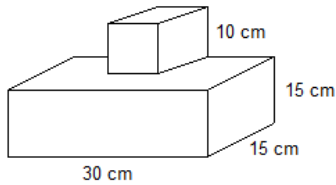
16. Which numbers are perfect squares?
- i) 42.25
 - ii) 32
 - iii) 28.9
 - iv) 3.24
- a. i and ii
 - b. i and iv
 - c. ii and iii
 - d. i and iii

17. Determine the value of $\sqrt{\frac{50}{72}}$.
- a. $\frac{5}{6}$
 - b. $\frac{5}{12}$
 - c. $\frac{25}{36}$
 - d. $\frac{10}{6}$

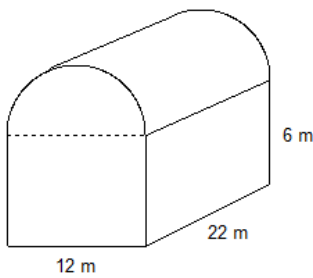
22. This composite object is made using centimetre cubes. Determine its surface area.



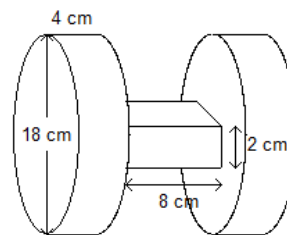
23. This object is composed of a cube on top of a right rectangular prism. Determine the surface area of the object.



24. A barn is built in the shape of a right rectangular prism with a semi-circular roof. Determine the surface area of the barn. Give your answer to the nearest whole number.



25. 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.



Problem

26. Determine the value of $\sqrt{\frac{\sqrt{81} + \sqrt{49}}{\sqrt{196} - \sqrt{100}}}$.

1) d

2) c

3) d

4) c

5) b

6) d

7) b

8) d

9) d

10) d

11) a

12) b

13) d

14) b

15) a

16) c

17) b

18. ANS:

1.7

PTS: 1 DIF: Easy REF: 1.1
 LOC: 9.N5 TOP: Number KEY: Pro

19. ANS:

 $\frac{17}{19}$

PTS: 1 DIF: Easy REF: 1.1
 LOC: 9.N5 TOP: Number KEY: Pro

20. ANS:

 $\sqrt{0.27} \doteq 0.5$

PTS: 1 DIF: Easy REF: 1.2
 LOC: 9.N6 TOP: Number KEY: Pro

21. ANS:

The length of the hypotenuse is about 3.9 cm.

PTS: 1 DIF: Moderate REF: 1.2
 LOC: 9.N6 TOP: Number KEY: Pro

22. ANS:

The surface area of the object is 26 cm².

PTS: 1 DIF: Easy
 REF: 1.3 Surface Areas of Objects Made from Right
 LOC: 9.SS2 TOP: Shape and Space (3-D Ob
 KEY: Procedural Knowledge

23. ANS:

The surface area of the composite object is 2650 cm².

24. ANS:

The surface area of the barn is about 936 m².

PTS: 1 DIF: Moderate REF

25. ANS:

The surface area of the object is about 1526 cm².

PTS: 1 DIF: Moderate REF: 1.
 LOC: 9.SS2 TOP: Shape and Space (3-D C
 KEY: Procedural Knowledge

PROBLEM

26. ANS:

$$\begin{aligned} \sqrt{\frac{\sqrt{81} + \sqrt{49}}{\sqrt{196} - \sqrt{100}}} &= \sqrt{\frac{9+7}{14-10}} \\ &= \sqrt{\frac{16}{4}} \\ &= 2 \end{aligned}$$