**Review Questions Surface Area and Volume Test**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_**

**Class: \_\_\_\_\_\_**

Please refer to your Formula Sheet in your scribbler when

doing the surface area and volume questions.

**Multiple Choice**

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

\_\_\_\_ 1. This is an incomplete net for a triangular prism. What shapes do you add to complete this net?



|  |  |  |  |
| --- | --- | --- | --- |
| a. | 3 squares | c. | 1 triangle and 3 squares |
| b. | 1 triangle and 2 squares | d. | 3 triangles |

\_\_\_\_ 2. This is an incomplete net for a square pyramid. What shapes do you add to complete the net?



|  |  |  |  |
| --- | --- | --- | --- |
| a. | 3 triangles | c. | 1 triangle and 3 squares |
| b. | 2 squares | d. | 1 triangle and 2 squares |

\_\_\_\_ 3. Which diagram is the net for a square pyramid?



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | Net A | b. | Net B | c. | Net C | d. | Net D |

\_\_\_\_ 4. Which diagram CANNOT be folded to make a cube?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 5. What shapes do you need to make a hexagonal pyramid?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 1 hexagon and 6 triangles | c. | 2 hexagons and 6 triangles |
| b. | 2 hexagons and 6 rectangles | d. | 1 hexagon and 6 rectangles |

\_\_\_\_ 6. Name the polyhedron that can be made from this net.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Rectangular prism | c. | Rectangular pyramid |
| b. | Hexagonal prism | d. | Hexagonal pyramid |

\_\_\_\_ 7. Name the polyhedron that can be made from this net.



|  |  |  |  |
| --- | --- | --- | --- |
| a. | Rectangular pyramid | c. | Rectangular prism |
| b. | Triangular prism | d. | Triangular pyramid |

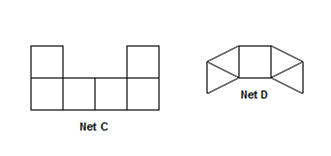
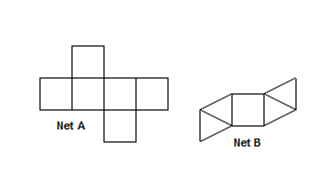
\_\_\_\_ 8. Draw a net for this object.

|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | c. | d. |
|  |  |  |  |

b.



\_\_\_\_ 9. Which diagram is a net of a square pyramid?



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | Net A | b. | Net B | c. | Net C | d. | Net D |

\_\_\_\_ 10. The area of one face of a cube is 25 cm2. What is the surface area of the cube?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 100 cm2 | b. | 150 cm2 | c. | 30 cm2 | d. | 125 cm2 |

\_\_\_\_ 11. Find the surface area of this right rectangular prism.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 420 m2 | b. | 300 m2 | c. | 600 m2 | d. | 480 m2 |

\_\_\_\_ 12. The length of one edge of this cube is 5 cm. What is the surface area of the cube?



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 150 cm2 | b. | 50 cm2 | c. | 30 cm2 | d. | 100 cm2 |

\_\_\_\_ 13. Calculate the surface area of this right triangular prism.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 1080 m2 | b. | 918 m2 | c. | 648 m2 | d. | 972 m2 |



\_\_\_\_ 14. Find the volume of this rectangular prism.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 160 cm3 | b. | 138 cm3 | c. | 336 cm3 | d. | 320 cm3 |

\_\_\_\_ 15. Find the volume of this triangular prism.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. |  | b. |  | c. |  | d. |  |

\_\_\_\_ 16. Find the surface area of this cylinder to the nearest square metre.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 905 m2 | b. | 704 m2 | c. | 653 m2 | d. | 452 m2 |

\_\_\_\_ 17. Find the surface area of this cylinder. Round your answer to the nearest tenth of a square metre.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 172.8 m2 | b. | 204.2 m2 | c. | 251.3 m2 | d. | 235.6 m2 |

\_\_\_\_ 18. Find the surface area of this cylinder. Round your answer to the nearest tenth of a square metre.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 459.5 m2 | b. | 636.2 m2 | c. | 289.8 m2 | d. | 42.4 m2 |

\_\_\_\_ 19. Find the volume of this cylinder. Round your answer to the nearest tenth.



|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| a. | 100 cm3 | b. | 157.1 cm3 | c. | 314.2 cm3 | d. | 785.4 cm3 |



20. Calculate the volume of this building. Explain your answer.

(Hint: There are two types of prisms.)

**Review Questions Surface Area and Volume Test**

**Answer Section**

**MULTIPLE CHOICE**

1. ANS: B

2. ANS: A

3. ANS: A

4. ANS: D

5. ANS: A

6. ANS: A

7. ANS: B

8. ANS: D

9. ANS: B

10. ANS: B

11. ANS: C

12. ANS: A

13. ANS: D

14. ANS: C

15. ANS: C

16. ANS: A

17. ANS: C

18. ANS: B

19. ANS: D

20. ANS:

Explanations may vary. Sample:

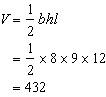
Divide the building into a square prism and a triangular prism.

Find the volume of each:

Square prism:



Triangular prism:



Sum of the volumes:



The volume of the building is 1200 m3.