**LESSON 35—NOTES**

**VOLUME OF RECTANGULAR AND TRIANGULAR PRISMS**

TRIANGULAR PRISMS AND CUBES: FORMULA: V = lwh

EX: EX:

CUBE

 2 IN 9 IN

 5 CM

 4 IN

TRIANGULAR PRISMS: FORMULA: V = Bh

**Capital B** – THE AREA OF THE BASE….IN THIS CASE THE BASE IS A TRIANGLE.

 FORMULA: A = $\frac{Bh}{2}$

**HEIGHT (h)** – THE DISTANCE BETWEEN THE BASES.

EX: EX:

 7 IN 3 M

 10 IN 6 M

 8 IN 5 M

AREA OF BASE VOLUME AREA OF BASE VOLUME

**LESSON 35—NOTES—STUDENT COPY**

**VOLUME OF RECTANGULAR AND TRIANGULAR PRISMS**

TRIANGULAR PRISMS AND CUBES: FORMULA:

EX: EX:

CUBE

 2 IN 9 IN

 5 CM

 4 IN

TRIANGULAR PRISMS: FORMULA:

**Capital B** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

 FORMULA:

**HEIGHT (h)** – \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

EX: EX:

 7 IN 3 M

 10 IN 6 M

 8 IN 5 M

AREA OF BASE VOLUME AREA OF BASE VOLUME

**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Class\_\_\_\_\_\_\_\_**

**LESSON 35: VOLUME OF PRISMS**

**NWNC!!**

**Find the volume of figures 1-3.**

1. 2. 3.

cube

9 cm 5 ft

 15 cm 8 ft

 21 cm 6 in 6 ft

formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ formula: \_\_\_\_\_\_\_\_\_ formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

volume: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ volume: \_\_\_\_\_\_\_\_\_ volume: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Draw and label pictures for questions 4-9.**

4. Brandon needs to refill half of his sandbox with formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 sand. The box is 1 foot deep, 6 feet long, and 7

 feet wide. How many ***cubic*** feet of sand will answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Brandon needs to buy for the sandbox?

5. The volume of a rectangular prism is 210 m3. formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 The length of the prism is 5 m and the height

 is 7 m. What is the width of the prism? answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. A camping tent is in the shape of a triangular formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 prism. The height of the tent is 6 feet, the width

 is 8 feet, and the length is 10 feet. What is the answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 volume of the tent?

7. A rectangular pasture requires 550 yards of formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 fencing around the outside to hold livestock.

 The width of the pasture is 90 yards. How answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 much fencing is required for each length?

8. The area of a dog run is 242 square feet. The formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 length of the pen is 22 feet. How wide is the

 dog run? answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. The approximate area of a circular table is formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 78.5 in2. What is the radius of the table?

answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

EX: -8 **The model represents the equation**

 +5 **5 – 8 = - 3**

 -3 0 5

**Use the above example to answer the questions 10-11**. **What equation does each model represent?**

10. +13 11. -9

 -6 +2

 0 0

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

12. By what rule does the value relate to the numbers position *(n)?* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **N** | 1 | 3 | 5 | 7 | N |
| **Value** | 7 | 15 | 23 | 31 |  |

A. 6n + 5 B. 6n – 5

C. 4.5n D. 4n + 3

13. What would be the value of the term in the 10th position? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. Which represents the length of 15. If the measure of one angle is 47˚,

 each side? \_\_\_\_\_\_\_\_\_\_\_\_\_\_ what is the measure of its

 complement? \_\_\_\_\_\_\_\_\_

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A. 

 16. The measure of one angle is 88˚.

B. 492  What is the measure of this

 anglessupplement? \_\_\_\_\_\_\_\_\_

C. 72

 17. What type of triangle has 3

D.  congruent sides? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Label the following parts of the circle:**

18. 19. What is the formula for finding the
 area of a trapezoid?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 distance around 20. What is the area of a trapezoid with

 a height of 4m and 2 bases each

 measuring 8m and 12m?

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_