**LESSON 36—NOTES**

**VOLUME OF CYLINDERS**

CYLINDERS—A 3-D FIGURE WITH 1 PAIR OF PARALLEL CIRCULAR BASES.

FORMULA:

V = Bh OR V = πr2h

EX: 6 IN EX: 4 FT

10 IN

7 FT

EX: 11 M EX: B = 3.14 YD2

3 YD

B = 50.24 M2

**LESSON 36—NOTES—STUDENT COPY**

**VOLUME OF CYLINDERS**

CYLINDERS—\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

FORMULA:

EX: 6 IN EX: 4 FT

10 IN

7 FT

EX: 11 M EX: B = 3.14 YD2

3 YD

B = 50.24 M2

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

**LESSON 36: VOLUME OF CYLINDERS**

**NWNC!!**

**Find the volume of the following cylinders for questions 1-3.**

1. 5 in 2. 4 ft 3. B = 12.56 m2

3 in

3 ft 6 m

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

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

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

4. Shawn is making a candle using a cylindrical formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

mold with a radius of 2 cm and a height of

30 cm. How many ***cubic*** centimeters of wax answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

are needed for the candle?

5. A mug in the shape of a cylinder has a base formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

with an area of 50.24 cm2. How many centi-

meters of liquid does it hold if filled to a answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

height of 9 cm?

6. Nelda is refilling a container in the shape formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

of a rectangular prism with sugar. The area

of the base of the rectangular prism is 30 in2. answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If the height of the container is 10 in, how

many ***cubic*** inches of sugar will it hold?

7. A square has a perimeter of 34 feet. What is answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

the length of each side of the square?

8. A photograph is 10 cm wide and 14 cm long. answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

If the photo will be enlarged to a length of

21 cm, what will the new width be?

9. A triangular table will have a height of 10 ft. formula: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

and a base length of 16 ft. What will be the

area of the table? answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Identify the following triangles by side and angle: equilateral, isosceles, scalene, acute, obtuse, & right.**

10. 11. 12.

side: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side: \_\_\_\_\_\_\_\_\_\_\_\_\_

angle: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angle: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angle: \_\_\_\_\_\_\_\_\_\_\_\_

**Fill in the table:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem** | **Fraction** | **Decimal** | **Percent** |
| **13.** |  |  |  |
| **14.** |  | 0.12 |  |
| **15.** |  |  | 20% |

**Identify the following nets:**

16. 17. 18.

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

Write an equation for each of the following models:

19. -11 20.

+6 -9 -15

-5 0 6 -24 -15 0

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