

1. A man wants to buy a water tank with a volume of 550 ft^3 that will fit on a square stand measuring 10 ft by 10 ft . If he decides to buy a tank with a radius of 5 ft , calculate the height of the tank.

2. A cylindrical oil tanker has a length of 17 ft and a diameter of 6 ft . Calculate the volume of the tanker.

Use the information below to answer questions 3-4.

A student wanted to know the volume of a tank. He tied a rope around the tank and found that the circumference of the tank was 37.7 ft . He then measured the height of the tank and found that the tank was 10 ft high.

3. Find the radius of the tank.

4. Calculate the volume of the tank.

Use the information below to answer questions 5-6.

A man dug a pit latrine 10 ft deep and with a diameter of 5 ft . The soil evacuated was then sold for 10 cubic feet at 0.5 dollars to another man who makes bricks.

5. Calculate the volume of soil evacuated.

6. How much money did the man pay for the soil?

7. A water pipe has an internal diameter of 0.25 ft and a length of 20 ft . Calculate the volume of water contained in the pipe.

8. Find the volume of steel used to make a steel water pipe 20 ft long with an internal diameter of 0.22 ft and an external diameter of 0.3 ft .

Use the information below to answer questions 9-11.

A cylindrical water cooler bottle with a diameter of 1 ft and a height of 1.8 ft is filled using a cylindrical jug with a height of 1 ft and a diameter of 0.4 ft .

9. Calculate the volume of the water cooler bottle.

10. Calculate the volume of the jug.

11. How many jugs of water will fill the cooler bottle?

Use the information below to answer questions 12-15.

A company buys 10 cubic inches of candle wax at 0.10 dollars to make two types of candles. Type A has a length of 10 in and a diameter of 3 in . Type B has a length of 7 in and a diameter of 2 in . In one day the company makes 1000 type A candles and 850 type B candles.

12. Calculate the volume of candle wax contained in type A candle.

13. Calculate the volume of candle wax contained in type B candle.

14. Calculate the volume of candle wax used by the company per day.

15. Calculate the cost of candle wax per day.

16. A trader sells honey in cylindrical cans of radius 3 in and height 6 in . A can has honey upto a height of 2 in . How much honey is missing in the can.

Use the information below to answer questions 17-18.

A jar of radius 4 *in* and height 7 *in* contains water upto a height of 4 *in*. When a piece of a stone is inserted, the water rose upto a height of 6 *in*.

17. Calculate the volume of the water that was initially in the jar.

18. Find the volume of the stone.

19. Calculate the volume of concrete needed to make a culvert of length 12 *ft* and with internal radius 2 *ft* and external radius of 2.5 *ft*.

20. A jar with a radius of 1.5 *in* and a height of 6 *in* is full of water. The water is then transferred to a beaker of radius 3 *in*. Calculate the height of the water in the beaker.

Answer Key

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1. 7 ft
2. 480.7 ft^3
3. 12 ft
4. 1131 ft^3
5. 196.8 ft^3
6. 9.80 dollars
7. 0.9819 ft^3
8. 0.6535 ft^3
9. 1.414 ft^3
10. 0.1257 ft^3
11. 11.25 jags of water
12. 70.70 in^3
13. 21.99 in^3
14. 89391.5 in^3
15. 893.90 dollars
16. 113.1 in^3
17. 201.1 in^3
18. 100.5 in^3
19. 84.83 in^3
20. 3 in