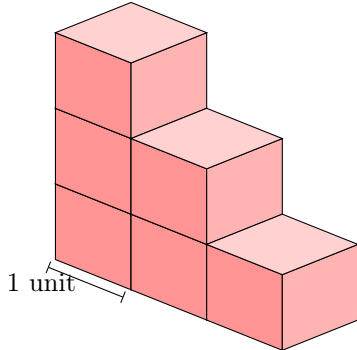


VOLUME

A DEFINITION

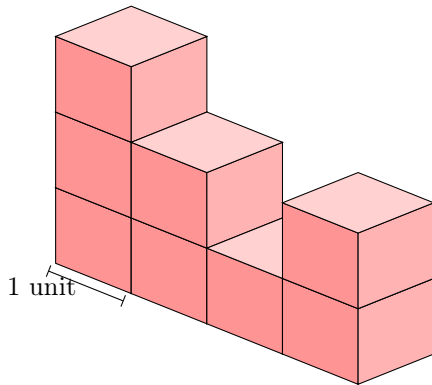
A.1 FINDING VOLUME OF A SHAPE

Ex 1: What is the volume of the red figure?



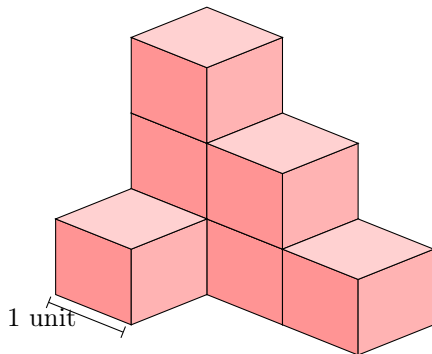
cubic units

Ex 2: What is the volume of the red figure?



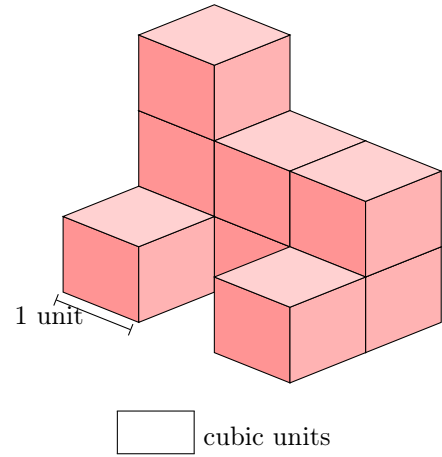
cubic units

Ex 3: What is the volume of the red figure?



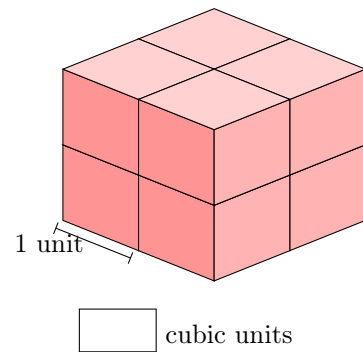
cubic units

Ex 4: What is the volume of the red figure?

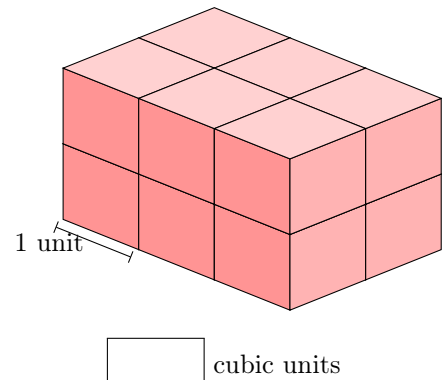


A.2 FINDING VOLUME OF A RECTANGULAR CUBOID

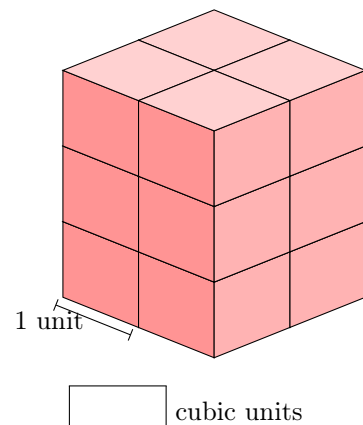
Ex 5: What is the volume of the red figure?



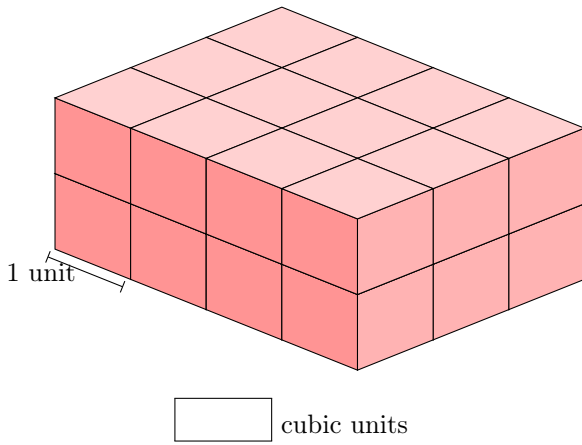
Ex 6: What is the volume of the red figure?



Ex 7: What is the volume of the red figure?



Ex 8: What is the volume of the red figure?



B UNITS OF VOLUME

B.1 CHOOSING UNITS FOR VOLUME

MCQ 9: What unit will be used to measure the volume of your bedroom?

Choose 1 answer:

- ☐ Cubic millimeters
- ☐ Cubic centimeters
- ☐ Cubic meters

MCQ 10: What unit will be used to measure the volume of a small toy block?

Choose 1 answer:

- ☐ Cubic millimeters
- ☐ Cubic centimeters
- ☐ Cubic meters

MCQ 11: What unit will be used to measure the volume of a grain of rice?

Choose 1 answer:

- ☐ Cubic millimeters
- ☐ Cubic centimeters
- ☐ Cubic meters

MCQ 12: What unit will be used to measure the volume of a bottle of milk?

Choose 1 answer:

- ☐ Cubic millimeters
- ☐ Cubic centimeters
- ☐ Cubic meters

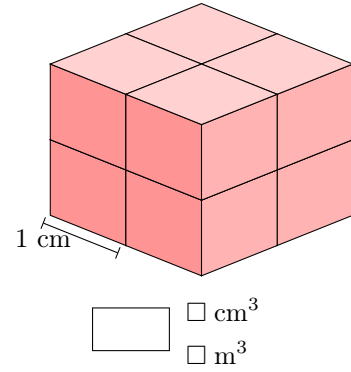
MCQ 13: What unit will be used to measure the volume of a swimming pool?

Choose 1 answer:

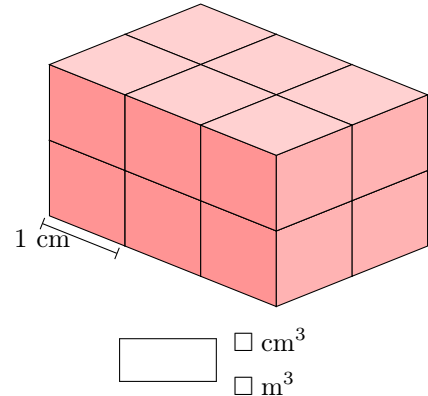
- ☐ Cubic millimeters
- ☐ Cubic centimeters
- ☐ Cubic meters

B.2 FINDING VOLUME OF A RECTANGULAR CUBOID

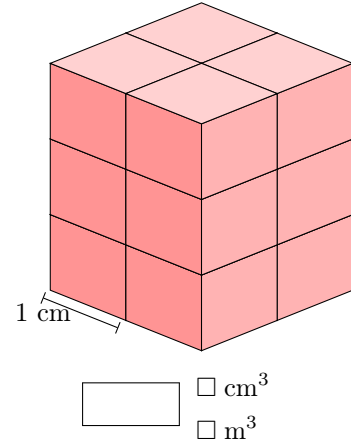
Ex 14: What is the volume of the red figure?



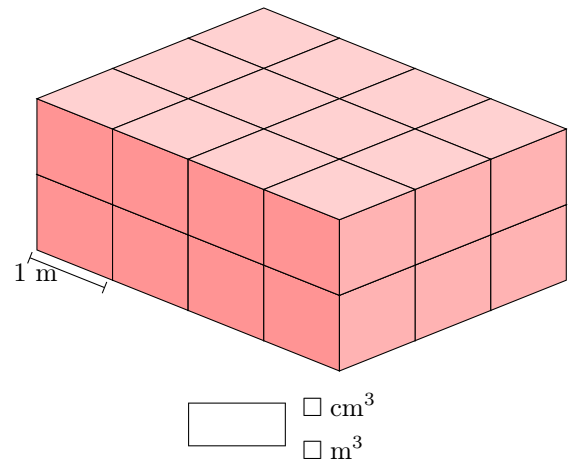
Ex 15: What is the volume of the red figure?



Ex 16: What is the volume of the red figure?



Ex 17: What is the volume of the red figure?



C CONVERSION OF VOLUME UNITS

C.1 CONVERTING VOLUME UNITS

Ex 18: Convert:

$$3 \text{ cm}^3 = \boxed{} \text{ mm}^3.$$

Ex 19: Convert:

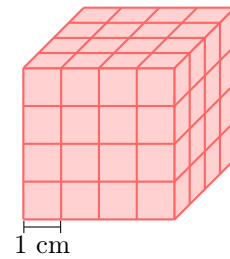
$$12\,000 \text{ mm}^3 = \boxed{} \text{ cm}^3.$$

Ex 20: Convert:

$$4 \text{ m}^3 = \boxed{} \text{ cm}^3.$$

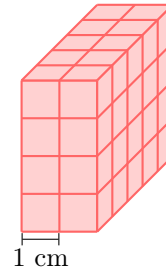
Ex 21: Convert:

$$15\,000\,000 \text{ cm}^3 = \boxed{} \text{ m}^3.$$



$$\boxed{} \text{ cm}^3$$

Ex 26: What is the volume of the red figure?

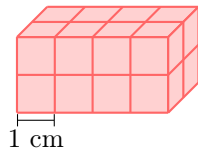


$$\boxed{} \text{ cm}^3$$

D VOLUME OF A RECTANGULAR CUBOID

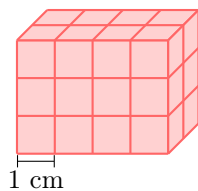
D.1 FINDING VOLUMES OF A RECTANGULAR CUBOIDS

Ex 22: What is the volume of the red figure?



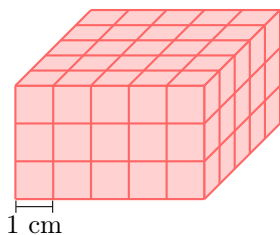
$$\boxed{} \text{ cm}^3$$

Ex 23: What is the volume of the red figure?



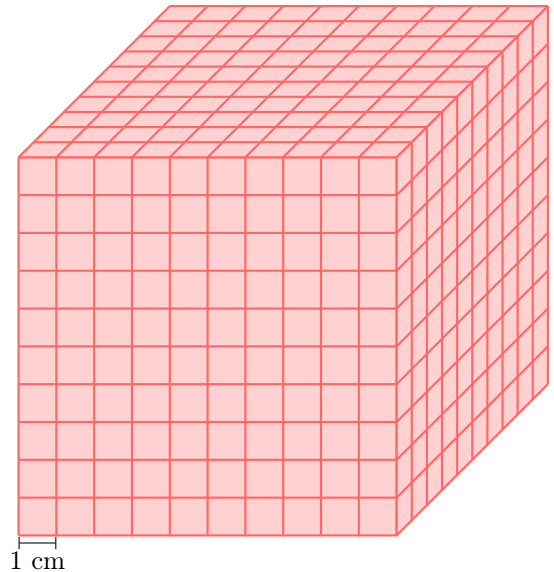
$$\boxed{} \text{ cm}^3$$

Ex 24: What is the volume of the red figure?




$$\boxed{} \text{ cm}^3$$

Ex 25: What is the volume of the red figure?



$$\boxed{} \text{ cm}^3$$


D.2 SOLVING PROBLEMS

Ex 28:  A rectangular swimming pool is 8 m long, 5 m wide, and 2 m deep. The water costs 10 dollars per cubic meter. What is the volume of the swimming pool?

$$\boxed{} \text{ m}^3$$

What is the cost to fill the swimming pool with water?


$$\boxed{} \text{ dollars}$$

Ex 29:  A container has a volume of 20 m^3 . A box is 2 m long, 1 m wide, and 0.5 m high. What is the volume of the box?

m^3

How many boxes can fit inside the container?


boxes

Ex 30:  A storage room has a volume of 150 m^3 . A water tank is 5 m long, 2 m wide, and 3 m high. What is the volume of the water tank?

m^3

How many water tanks can fit inside the storage room?

water tanks

Ex 31:  A rectangular fish tank is 2 m long, 1 m wide, and 1 m deep. The water costs 15 dollars per cubic meter. What is the volume of the fish tank?

m^3

What is the cost to fill the fish tank with water?

dollars

E CAPACITY

E.1 CHOOSING UNITS FOR CAPACITY

MCQ 32: What unit best measures the capacity of a bathtub?
Choose 1 answer:

- ☐ 220 mL
- ☐ 2 200 mL
- ☐ 220 L

MCQ 33: What unit best measures the capacity of a dosage of medicine?
Choose 1 answer:

- ☐ 5 mL
- ☐ 0.5 L
- ☐ 5 L

MCQ 34: What unit best measures the capacity of a wine glass?
Choose 1 answer:

- ☐ 150 L
- ☐ 15 cL
- ☐ 1.5 L

MCQ 35: What unit best measures the capacity of a soup bowl?

Choose 1 answer:

- ☐ 40 cL
- ☐ 40 mL
- ☐ 40 L

MCQ 36: What unit best measures the capacity of a car's fuel tank?

Choose 1 answer:

- ☐ 60 mL
- ☐ 60 L
- ☐ 600 L

MCQ 37: What unit best measures the capacity of a pitcher?

Choose 1 answer:

- ☐ 2.5 mL
- ☐ 2.5 L
- ☐ 25 L

E.2 CONVERTING CAPACITY UNITS

Ex 38: Convert:

3 L = cL.

Ex 39: Convert:

1.5 L = cL.

Ex 40: Convert:

20 cL = L.

Ex 41: Convert:

250 cL = L.

Ex 42: Convert:

2 L = mL.

Ex 43: Convert:

30 mL = cL.

E.3 CONVERTING BETWEEN METRIC VOLUME AND CAPACITY UNITS

Ex 44: Convert:

5 m^3 = L.

Ex 45: Convert:

500 L = m^3 .

Ex 46: Convert:

3.4 m^3 = L.

Ex 47: Convert:

2 L = m^3 .