

Converting Cubic Measurements

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Name _____

1) Convert 9 cubic feet into cubic inches

$$9 \times \frac{12^3 \text{ in}^3}{1^3 \text{ ft}^3} = 9 \times 1728$$

$$= 15552 \text{ cu in}$$

3) Convert 5 000 000 cubic inches into cubic yards

$$5000000 \text{ in}^3 \times \frac{1^3 \text{ yd}^3}{36^3 \text{ in}^3}$$

$$= \frac{5000000}{7776} = 643 \text{ yd}^3$$

5) Convert 100 cubic cm into cubic inches

$$100 \text{ cm}^3 \times \frac{1^3 \text{ in}^3}{2.54^3 \text{ cm}^3}$$

$$\frac{100}{16.39} = 6.1 \text{ in}^3$$

7) Convert 3 cubic km into cubic miles

$$3 \text{ km}^3 \times \frac{1^3 \text{ mi}^3}{1.609^3 \text{ km}^3}$$

$$\frac{3}{4.166} = 0.72 \text{ mi}^3$$

2) Convert 50 cubic feet into cubic yards

$$5 \text{ ft}^3 \times \frac{1^3 \text{ yd}^3}{3^3 \text{ ft}^3}$$

$$= \frac{5}{27} = 0.185 \text{ yd}^3$$

4) Convert 5 cubic feet into cubic metres

$$5 \text{ ft}^3 \times \frac{0.3048^3 \text{ m}^3}{1^3 \text{ ft}^3}$$

$$5 \times 0.0283 = 0.142 \text{ m}^3$$

6) Convert 7 cubic inches into cubic mm

$$7 \text{ in}^3 \times \frac{25.4^3 \text{ mm}^3}{1^3 \text{ in}^3} = 7 \times 16387.06$$

$$= 114709.44 \text{ mm}^3$$

8) Convert 0.00000001 cubic km into cubic inches

$$0.00000001 \text{ km}^3 \times \frac{1^3 \text{ mi}^3}{1.609^3 \text{ km}^3} \times \frac{5280^3 \text{ ft}^3}{1^3 \text{ mi}^3}$$

$$= \frac{1471.98}{4.17} \times \frac{12^3 \text{ in}^3}{1 \text{ ft}^3}$$

$$= 353.37 \times 1728$$

$$= 610623.4 \text{ in}^3$$

Answers to Converting Cubic Measurements

1) $15552in^3$

2) $1.85yd^3$

3) $107.17yd^3$

4) $0.14m^3$

5) $6.1in^3$

6) $114709.45mm^3$

7) $0.72mi^3$

8) $610237.44in^3$