Capacity and Temperature

Name_____

1) Convert 30° Celsius into Fahrenheit.

$F = \frac{9}{5}C + 32$

$F = \frac{9}{5}(30) + 32$

$F = 54 + 32 = \boxed{86°F}$

2) Convert 100° Fahrenheit into Celsius

$C = \frac{5}{9}(F - 32)$

$C = \frac{5}{9}(100 - 32)$

$C = \frac{5}{9}(68) = \boxed{37.8°C}$

3) Convert -42° F into Celcius

$C = \frac{5}{9}(F - 32)$

$C = \frac{5}{9}(-42 - 32)$

$C = \frac{5}{9}(-74)$

$C = \boxed{-41.1°C}$

4) Convert 0° Celsius into Fahrenheit

$F = \frac{9}{5}C + 32$

$F = \frac{9}{5}(0) + 32$

$F = \boxed{32°F}$

5) Convert 3 gallons into quarts

$3G \times \frac{4\ Q}{1\ G}$

$\boxed{12Q}$

6) Convert 6 quarts into fluid ounces

$6Q \times \frac{32\ Floz}{1\ Q}$

$\boxed{192\ Fl.oz}$

7) Convert 4 litres into millilitres

$4L \times \frac{1000\ mL}{1\ L} = \boxed{4000mL}$

8) Convert 6 gallons(UK) into gallons (US)

$6G(UK) \times \frac{4.546L}{1\ G(UK)} \times \frac{1\ G(US)}{3.785L}$

$\boxed{7.21\ G(US)}$

9) Convert 12 gallons into litres

$12GAL(US) \times \frac{3.785\ L}{1\ G}$

$\boxed{45.42L}$

10) Convert 50 litres into gallons

$50L \times \frac{1\ GAL}{3.785\ L}$

$\boxed{13.2G}$

11) Convert 12 pints into fluid ounces

$12pts \times \frac{16\ floz}{1\ Pt}$

$\boxed{192fl\ oz}$

12) Convert 18 quarts into gallons

$18Q \times \frac{1\ G}{4\ Q}$

$\boxed{4.5G}$

13) Convert 30 litres into gallons

$30L \times \frac{G}{3.785\ L}$ $\boxed{7.93G}$

14) Convert 290 litres into kilolitres

$290L \times \frac{1\ kL}{1000\ L}$

$\boxed{.290KL}$

15) Convert 65000 millilitres into kilolitres

$65000\,mL \times \frac{1\,L}{1000\,mL} \times \frac{1\,kL}{1000\,L}$

$.065\,kL$

16) Convert 70 fluid ounces into gallons

$70\,floz \times \frac{1\,q}{32\,floz} \times \frac{1\,G}{4\,q}$

$0.547\,G$

17) Convert 500 gallons into kilolitres

$500\,G \times \frac{3.785\,L}{1\,G} \times \frac{1\,kL}{1000\,L}$

$1.89\,kL$

18) Convert 2500 cm^3 into millilitres

5.0L
5000cc

$2500\,cm^3 = 2500\,mL$

19) Convert 7450 cm^3 into litres

$7450\,cm^3 = 7450\,mL \times \frac{1\,L}{1000\,mL}$

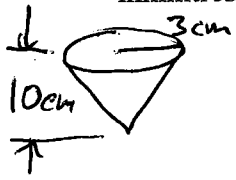
$7.450\,L$

20) Convert 6000cm^3 into gallons (US).

$6000\,cm^3 = 6000\,mL \times \frac{1\,L}{1000\,mL} \times \frac{1\,Gus}{3.785\,L}$

$1.585\,G$

21) A cone has a radius of 3cm and a height of 10cm. Determine the capacity in millilitres.



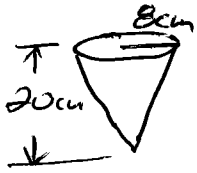
$V = \frac{\pi r^2 h}{3}$

$V = \frac{\pi(3)^2(10)}{3}$

$V = \frac{282.74}{3}$

$V = 94.25\,cm^3 = 94.25\,mL$

22) A cone has a radius of 8cm and a height of 20cm. Determine the capacity in litres.



$V = \frac{\pi r^2 h}{3}$

$V = \frac{\pi(8)^2(20)}{3}$

$V = \frac{4021.24}{3}$

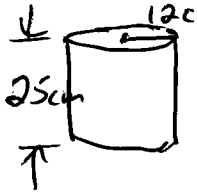
$V = 1340.4\,cm^3$

$= 1340.4\,mL$

$\div 1000$

$= 1.3404\,L$

23) A cylinder has a radius of 12cm and a height of 25cm. Determine its capacity in Gallons.



$V = \pi r^2 h$

$V = \pi(12)^2(25)$

$V = 11309.73\,cm^3$

$= 11309.73\,mL \times$

$\div 1000$

$= 11.30973\,L \times \frac{1\,G}{3.785\,L}$

$2.99\,G$

24) A cylinder has a diameter of 80cm and a height of 1.4m. Determine its capacity in fluid ounces.

$V = \pi r^2 h$

$V = \pi(40)^2(140)$

$V = 703716\,cm^3$

$= 703716\,mL$

$703716\,mL \times \frac{1\,L}{1000\,mL} \times \frac{1\,G}{3.785\,L}$

$186\,G \times \frac{4\,Q}{1\,G} \times \frac{32\,floz}{1\,Q}$

$23,798.08\,floz$