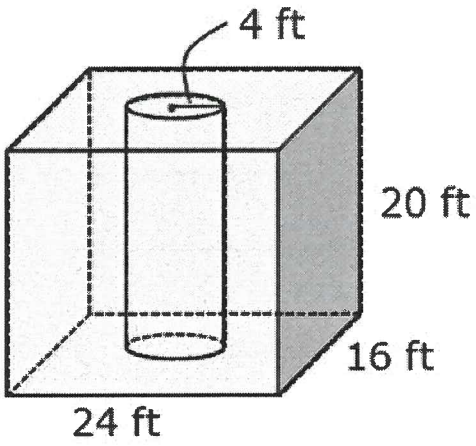
KEY

First Name:_____ Last Name:_____

L05 – FQ – Volume and Volume Unit Conversions

Q1: A hole is drilled through a rectangular prism. Calculate the volume, in cubic feet. *(3 marks)*



CUBE VOL = $l \times w \times H = (24)(16)(20) = 7680\ ft^3$

CYLINDER VOL = (Base) × h
$= (\pi r^2) \times h$
$= (3.14)(4)^2 \times (20)$
$= (50.24) \times (20)$
$= 1004.8\ ft^3$

TOTAL VOL = CUBE − CYLINDER
$= 7680 - 1004.8$
$= 6675.2\ ft^3$

Q2: Another figure has a volume of 200 m^3. What is the volume in yards^3? *(1 mark)*

$$\frac{200\ m \cdot m \cdot m}{1} \times \frac{1\ yd}{0.9144\ m} \times \frac{1\ yd}{0.9144\ m} \times \frac{1\ yd}{0.9144\ m} = \frac{200\ yd^3}{0.76455\ldots}$$

$= 261.59\ yd^3$

MARKING:

Beginning	0 – 1.5
Progressing	2 – 2.5
Competent	3 – 3.5
Exemplary	4