

Review for Test - Answers.

1.

$$(a) \quad 45 \times \frac{\text{km}}{\text{mi}}$$

$$45 \times \frac{1.6093}{1}$$

$$= \underline{\underline{72.4 \text{ km}}}$$

$$(b) \quad 75 \times \frac{\text{cm}}{\text{in}}$$

$$75 \times \frac{2.54}{1}$$

$$= \underline{\underline{190.5 \text{ cm}}}$$

$$(c) \quad 37 \times \frac{\text{kg}}{\text{g}}$$

$$37 \times \frac{1}{1000}$$

$$\frac{37}{1000}$$

$$= \underline{\underline{0.037 \text{ kg}}}$$

$$(d) \quad 26 \times \frac{\text{lb}}{\text{oz}}$$

$$26 \times \frac{1}{16}$$

$$\frac{26}{16}$$

$$= \underline{\underline{1.625 \text{ lb}}}$$

$$(e) \quad 3000 \times \frac{\text{mi}}{\text{yd}}$$

$$37 \times \frac{1}{1000}$$
$$\frac{37}{1000}$$
$$= \underline{\underline{0.037\text{kg}}}$$

(e)

$$3000 \times \frac{\text{mi}}{\text{yd}}$$
$$3000 \times \frac{1}{1760}$$
$$= \underline{\underline{1.7\text{mi}}}$$

$$26 \times \frac{1}{16}$$

$$\frac{26}{16}$$

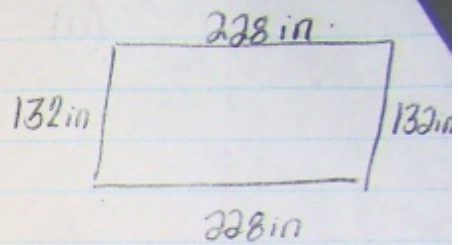
$$= \underline{\underline{1.625\text{lb}}}$$

#2.

$$(a) \quad 11 \times \frac{\text{in}}{\text{ft}} \quad 19 \times \frac{12}{1}$$

$$11 \times \frac{12}{1} = 228 \text{ in}$$

$$= 132 \text{ in}$$



Perimeter $132 + 132 + 228 + 228 = \underline{720 \text{ in}}$

#3. (a) $2.54 \text{ cm} = 0.0254 \text{ m}$

$$\frac{\text{ft}}{\text{m}} \quad 196.848 \times \frac{\text{in}}{\text{ft}} \quad \left\{ \begin{array}{l} \text{OR} \\ 60 \times \frac{\text{in}}{\text{m}} \end{array} \right.$$

3.2808 196.848×12 $1 \text{ in} = 2.54 \text{ cm}$ 20×0.0154

$$= 132 \text{ in}$$

$$\text{Perimeter } 132 + 132 + 228 + 2$$

#3. (a) $2.54 \text{ cm} = 0.0254 \text{ m}$

$$\begin{aligned} \text{(a)} \quad & 60 \times \frac{\text{ft}}{\text{m}} && 196.848 \times \frac{\text{in}}{\text{f}} \\ & 60 \times \frac{3.2808}{1} && 196.848 \times \frac{12}{1} \\ & = 196.848 \text{ ft} && = 2362.176 \text{ in} \\ & 20 \times \frac{3.2808}{1} && 65.616 \times \frac{12}{1} \\ & = 65.616 \text{ ft} && = 787.392 \text{ in} \end{aligned}$$

OR

$$\begin{aligned} & 60 \times \frac{\text{in}}{\text{m}} \\ & 60 \times \frac{1}{0.0254} && 20 \times \frac{0.0154}{0.0254} \\ & = 2362.2 && = 787.4 \end{aligned}$$

$$\begin{aligned} \text{Area} &= l \times w \\ &= 2362.2 \times 787.4 \\ &= 1859996.28 \text{ in}^2 \end{aligned}$$

65.616 ft = 787.392 in Area = $l \times w$
 $= 2362.2 \times 787.4$
 $= 1859996.28 \text{ in}^2$

(b) $8 \times \frac{\text{ft}}{\text{m}}$

$8 \times \frac{3.2808}{1}$

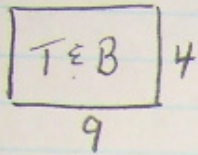
$= 26.2 \text{ ft}$

$11 \times \frac{3.2808}{1}$

$= 36.1 \text{ ft}$

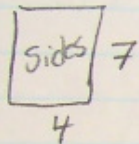
Area = $\frac{b \times h}{2}$
Area = $\frac{26.2 \times 36.1}{2}$
Area = 472.9 ft^2

1)



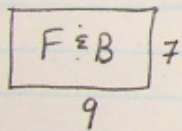
$$A = l \times w$$
$$4 \times 9 \times \underline{\underline{2}} = 72 \text{ yd}^2$$

+



$$A = l \times w$$
$$7 \times 4 \times \underline{\underline{2}} = 56 \text{ yd}^2$$

+



$$A = l \times w$$
$$= 9 \times 7 \times \underline{\underline{2}} = 126 \text{ yd}^2$$

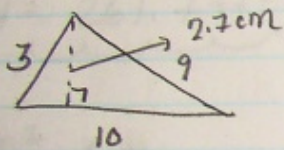
$$= 254 \text{ yd}^2$$

2)

$$SA = \pi r^2 + \pi r s$$
$$= (3.14)(7)^2 + (3.14)(7)(15.7)$$

2). $SA = \pi r^2 + \pi r s$
 $= (3.14)(7)^2 + (3.14)(7)(15.7)$
 $= (3.14)(49) + 345.086$
 $= 153.86 + 345.086$
 $= 498.946 \text{ cm}^2$

3).



$$A = \frac{b \times h}{2}$$

$$A = \frac{10 \times 2.7}{2}$$

$$A = 13.5 \text{ cm}^2 \cdot \times 2 = 27 \text{ cm}^2$$

$$A = l \times w$$

$$= 5 \times 10$$

$$= 50 \text{ cm}^2$$

$$A = l \times w$$

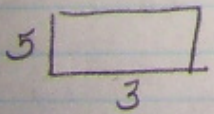
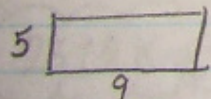
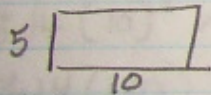
$$= 5 \times 9$$

$$= 45 \text{ cm}^2$$

$$A = l \times w$$

$$= 5 \times 3$$

$$= 15 \text{ cm}^2$$



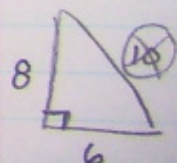
$$= 137 \text{ cm}^2$$

$$\begin{aligned}
 4. \quad V &= \frac{4\pi r^3}{3} \\
 &= \frac{4(3.14)(9.2)^3}{3} \\
 &= \frac{4(3.14)(778.688)}{3} \\
 &= \frac{3260.12 \text{ mi}^3}{3}
 \end{aligned}$$

$$\begin{aligned}
 SA &= 4\pi r^2 \\
 &= 4(3.14)(9.2)^2 \\
 &= 4(3.14)(84.64) \\
 &= 1063.08 \text{ mi}^2
 \end{aligned}$$

$$5) \quad V = \frac{\pi r^2 \times H}{3}$$

$$6) \quad V = \frac{\left(\frac{b \times h}{2}\right) \times H}{3}$$



$$5) V = \frac{\pi r^2 \times H}{3}$$

$$V = \frac{(3.14)(5)^2 \times 10}{3}$$

$$V = \frac{(3.14)(25) \times 10}{3}$$

$$V = \frac{785}{3}$$

$$V = 261.7 \text{ ft}^3$$

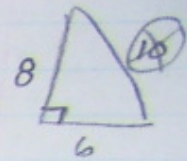
$$7. V = \pi r^2 \times H$$

$$= 3.14 (10)^2 \times 8$$

$$= 3.14 (100) \times 8$$

$$= 2512 \text{ km}^3$$

$$6) V = \frac{\left(\frac{b \times h}{2}\right) \times H}{3}$$



$$V = \frac{\left(\frac{8 \times 6}{2}\right) \times 11}{3}$$

$$V = \frac{24 \times 11}{3}$$

$$V = \frac{264}{3}$$

$$V = 88 \text{ yd}^3$$

$$8. V = l \times w \times H$$

$$= 6 \times 11 \times 5$$

$$= 330 \text{ yd}^3$$

9. Cylinder

$$V = \pi r^2 \times H$$

$$V = 3.14(3)^2 \times 8.1$$

$$V = 3.14(9) \times 8.1$$

$$V = 228.906 \text{ cm}^3$$

Cone

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

$$V = \frac{3.14(3)^2 \times 5.25}{3}$$

$$V = \frac{3.14(9) \times 5.25}{3}$$

$$V = \frac{148.365}{3}$$

$$V = 49.455 \text{ cm}^3$$

Total

Volume

$$228.906 + 49.455 = \underline{\underline{278.361 \text{ cm}^3}}$$

#10. (a) $F = \frac{9}{5}C + 32$ (b) $C = \frac{5}{9}(F - 32)$

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

$$F = 54 + 32$$

$$F = 86^\circ\text{F}$$

$$C = \frac{5}{9}(77 - 32)$$

$$C = \frac{5}{9}(45)$$

$$C = 25^\circ\text{C}$$

(c) 5 US gallons

$$5 \times \frac{\text{L}}{\text{gal}}$$

$$5 \times 3.785$$

$$= 18.925 \text{ L}$$

(d) $5.5 \times \frac{\text{ml}}{\text{oz}}$

$$5.5 \times 29.5735$$

$$= 162.7 \text{ ml}$$

No you don't have enough!

e) $1300 \times \frac{\text{km}}{\text{mi}}$
 $1300 \times \frac{1.6093}{1}$
 $= \underline{\underline{2092.09 \text{ km}}}$

$2092.09 - 800$
 $= \underline{\underline{1292.09 \text{ km Left}}}$