


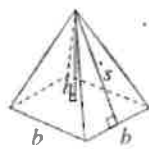
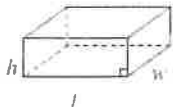


Name: **KEY**

Final Exam Review Pack – Section 1

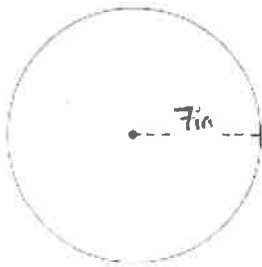
Surface Area and Volume General Formula Sheet

Geometric Solid	Surface Area	Volume
Cylinder 	$A_{top} = \pi r^2$ $A_{base} = \pi r^2$ $A_{side} = 2\pi rh$ $SA = 2\pi r^2 + 2\pi rh$	$V = (\text{area of base}) \times h$
Sphere 	$SA = 4\pi r^2$ or $SA = \pi d^2$	$V = \frac{4}{3}\pi r^3$
Cone 	$A_{side} = \pi rs$ $A_{base} = \pi r^2$ $SA = \pi r^2 + \pi rs$	$V = \frac{1}{3} \times (\text{area of base}) \times h$
Square-Based Pyramid 	$A_{triangle} = \frac{1}{2}bs$ (for each triangle) $A_{base} = b^2$ $SA = 2bs + b^2$	$V = \frac{1}{3} \times (\text{area of base}) \times h$
Rectangular Prism 	$SA = wh + wh + lw + lw + lh + lh$ or $SA = 2(wh + lw + lh)$	$V = (\text{area of base}) \times h$
General Right Prism	$SA = \text{the sum of the areas of all the faces}$	$V = (\text{area of base}) \times h$
General Right Pyramid	$SA = \text{the sum of the areas of all the faces}$	$V = \frac{1}{3} \times (\text{area of base}) \times h$

Section 1.1 – Area

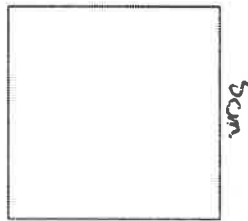
Find the area of each figure.

1)



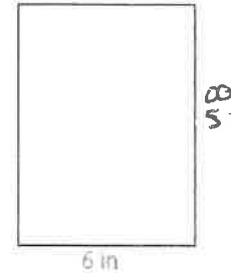
Area = 153.9 in²

2)



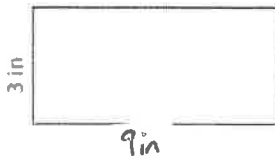
Area = 25 cm²

3)



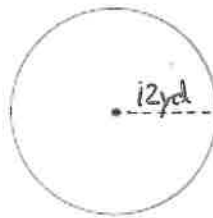
Area = 48 in²

4)



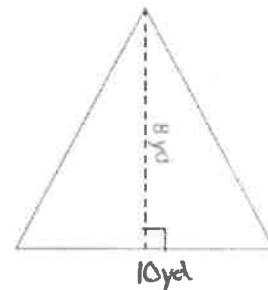
Area = 27 in²

5)



Area = 452.4 yd²

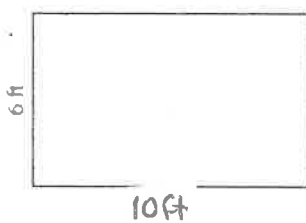
6)



Area = 40 yd²

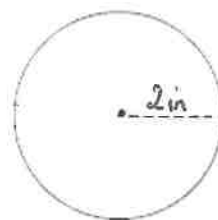
Find the area of each figure.

7)



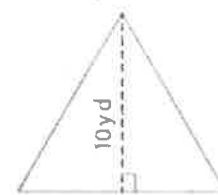
Area = 60 ft²

8)



Area = 12.57 in²

9)



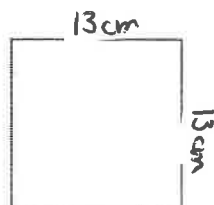
Area = 60 yds²

10)



Area = 55 in²

11)



Area = 169 cm²

12)

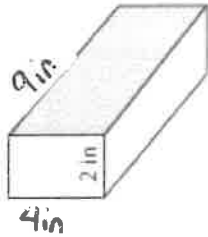


Area = 113.09 cm²

Section 1.2 – Surface Area

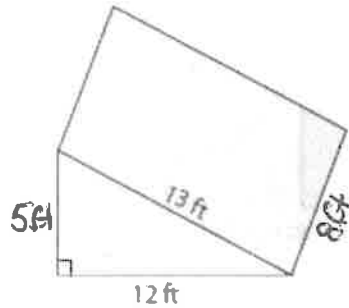
Find the Exact Surface Area of the following shapes. Round to 1 decimal place if necessary.

1)



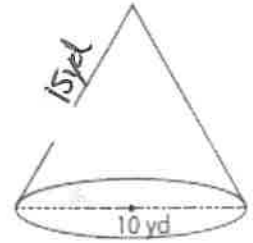
Surface Area = 124 in²

2)



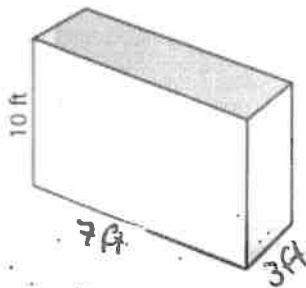
Surface Area = 300 ft²

3)



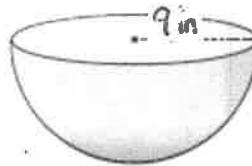
Surface Area = 314.2 yd²

4)



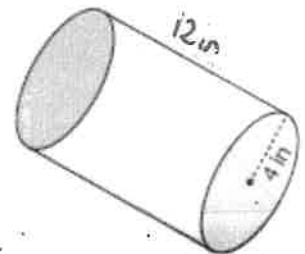
Surface Area = 242 ft²

5)



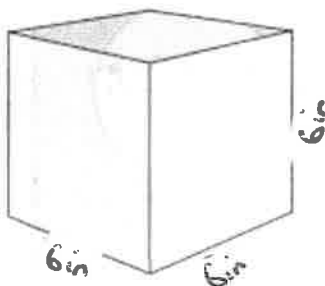
Surface Area = 763.4 in²

6)



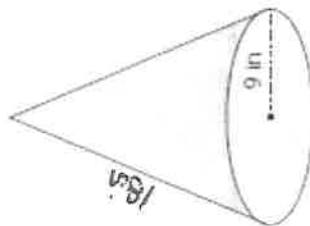
Surface Area = 402.1 in²

7)



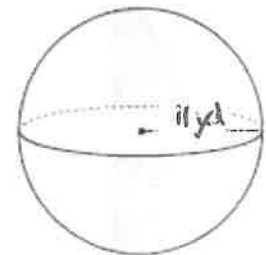
Surface Area = 216 in²

8)



Surface Area = 763.4 in²

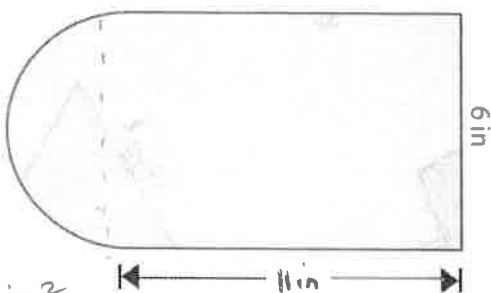
9)



Surface Area = 1520.5 yd²

Find the area of each figure. Round the answer to 2 decimal places if necessary.

13)

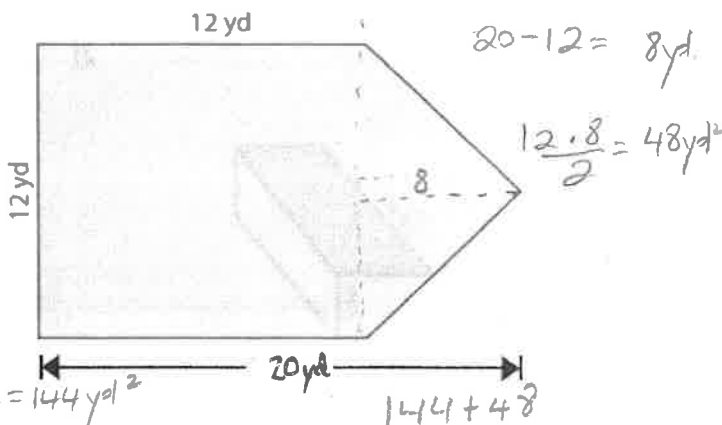


$$11 \cdot 6 = 66 \text{ in}^2$$

$$\frac{\pi \cdot 3^2}{2} = 14.13716$$

Area = 80.14 in²

14)



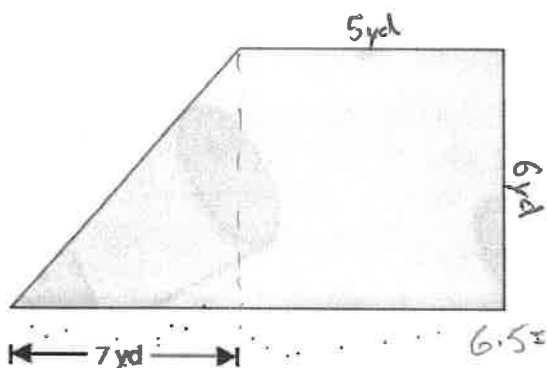
$$12 \cdot 20 = 240 \text{ yd}^2$$

$$12 \cdot 8 = 96$$

$$\frac{96}{2} = 48$$

Area = 192 yd²

15)

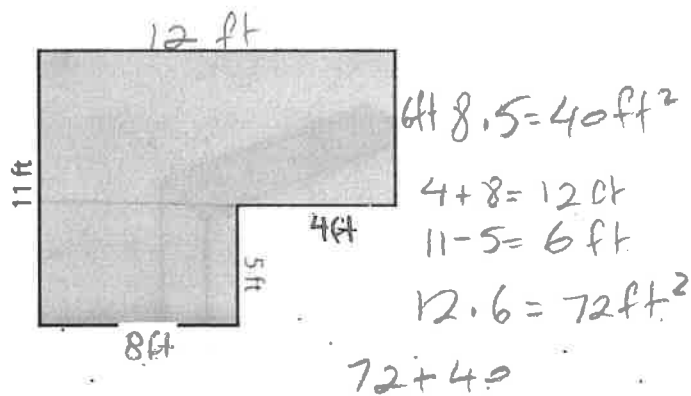


$$6 \cdot 5 = 30 \text{ yd}^2$$

$$\frac{7 \cdot 6}{2} = 21 \text{ yd}^2$$

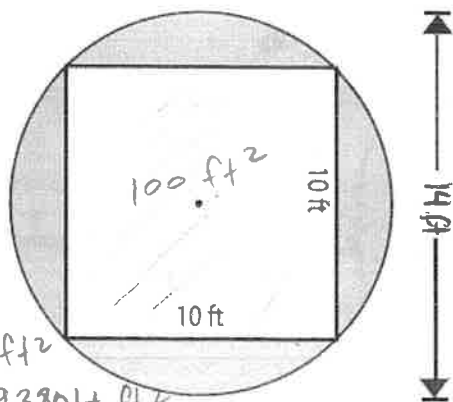
Area = 51 yd²

16)



Area = 112 ft²

17)



$$14 \div 2 = 7$$

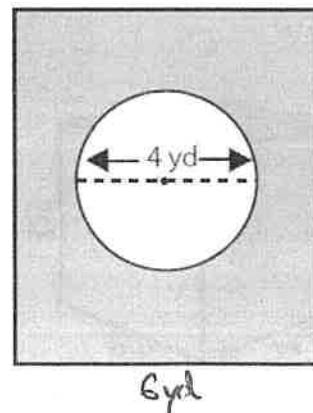
$$10 \cdot 10 = 100 \text{ ft}^2$$

$$\pi \cdot 7^2 = 153.93804 \text{ ft}^2$$

$$153.93804 - 100 = 53.93804$$

Area = 53.94 ft²

18)



$$6 \cdot 6 = 36 \text{ yd}^2$$

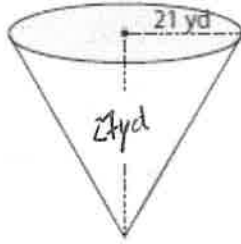
$$4 \div 2 = 2$$

$$\pi \cdot 2^2 = 12.5663$$

Area = 35.43 yd²

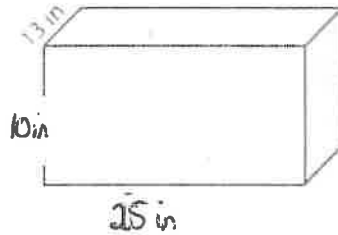
Find the Exact Surface Area of the following shapes. Round to 1 decimal place if necessary.

10)



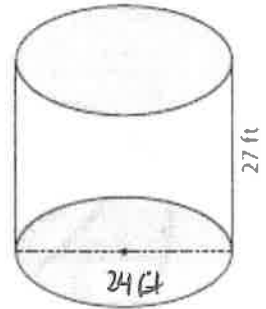
Surface Area = 3642.08 yd²

11)



Surface Area = 1410 in²

12)



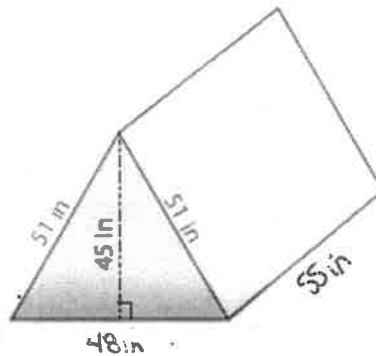
Surface Area = 2940.5 ft²

13)



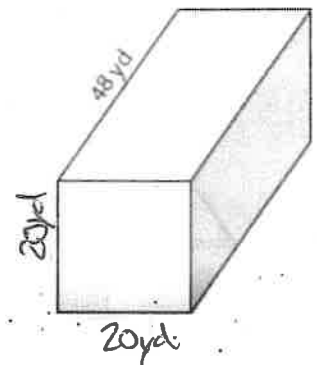
Surface Area = 8482.3 ft²

14)



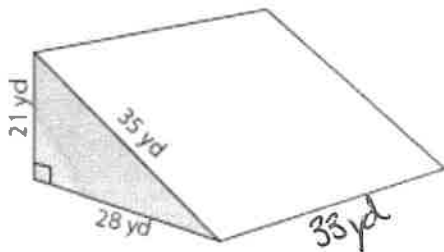
Surface Area = 10410 in²

15)



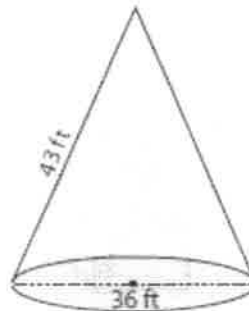
Surface Area = 4640 yd²

16)



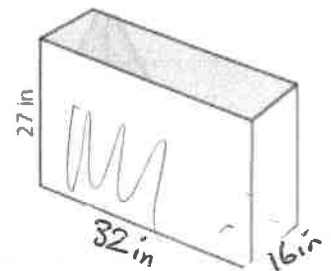
Surface Area = 2667 yd²

17)



Surface Area = 3449.5 ft²

18)

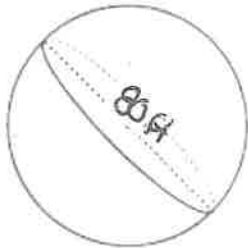


Surface Area = 3616 in²

Section 1.3 – Volume

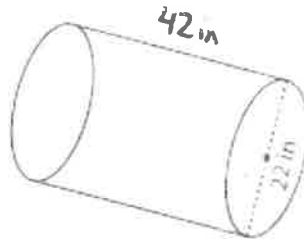
Find the volume of each shape. Round the answer to nearest tenth.

1)



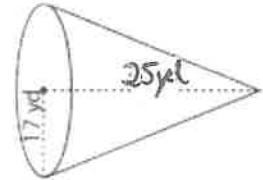
Volume = 268082.6 ft³

2)



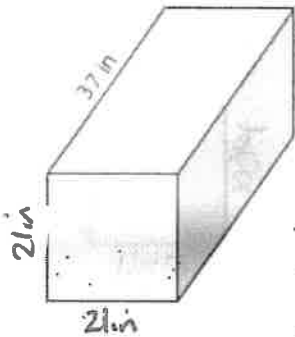
Volume = 15965.6 in³

3)



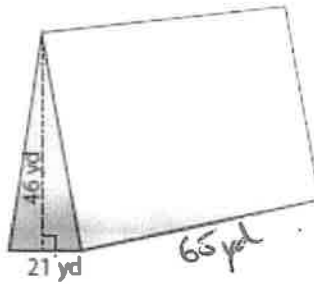
Volume = 7566.0 yd³

4)



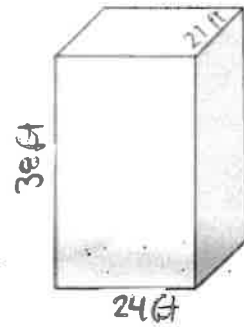
Volume = 16317 in³

5)



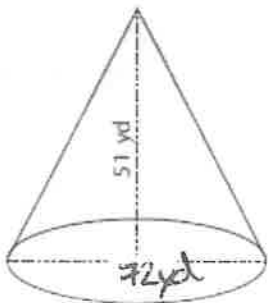
Volume = 31395 yd²

6)



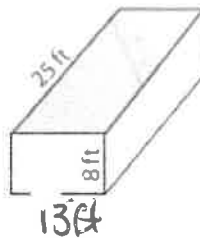
Volume = 19152 ft³

7)



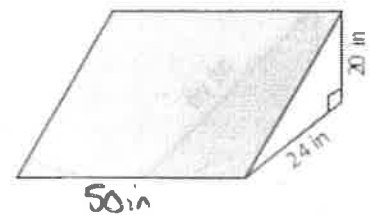
Volume = 69215.6 yd³

8)



Volume = 2600 ft³

9)



Volume = 12000 in³