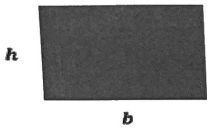
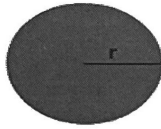
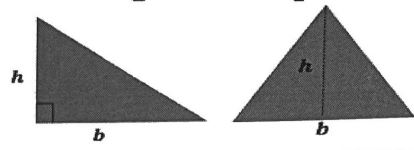


AREA OF SHADED REGIONS

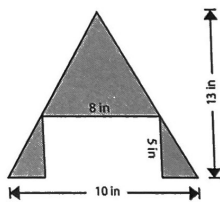
Key

How to find the area of a shaded region....

1. Separate it into figures with areas you know how to find.
2. Subtract those areas.

<p>Rectangle: $A = bh$</p> 	<p>Circle: $A = \pi \cdot r \cdot r$</p> 	<p>Triangle: $A = \frac{bh}{2}$</p> 
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Find the area of the shaded region.

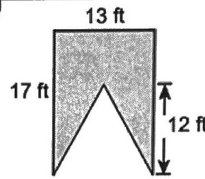


$$A_{\Delta} = \frac{10(13)}{2} = \frac{130}{2} = 65$$

$$A_{\square} = 8(5) = 40$$

$$65 - 40 = 25$$

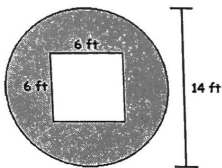
Area of Shaded Region: 25 in²



$$A_{\square} = 13(17) = 221$$

$$A_{\Delta} = \frac{12(12)}{2} = \frac{156}{2} = 78$$

Area of Shaded Region: 221 - 78 = 143 ft²

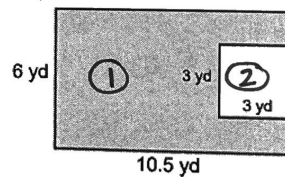


$$d = 14 \quad r = \frac{14}{2} = 7$$

$$A_{\circ} = 3.14(7)(7) = 153.86$$

$$A_{\square} = 6(6) = 36$$

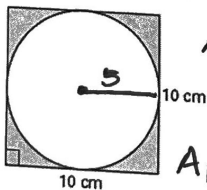
Area of Shaded Region: 153.86 - 36 = 117.86 ft²



$$A_{\square} = 6(10.5) = 63$$

$$A_{\square} = 3(3) = 9$$

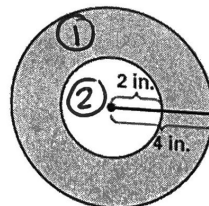
Area of Shaded Region: 63 - 9 = 54 yd²



$$A_{\circ} = 3.14(5)(5) = 78.5$$

$$A_{\square} = 10(10) = 100$$

Area of Shaded Region: 100 - 78.5 = 21.5 cm²



$$A_{\circ} = 3.14(4)(4) = 50.24$$

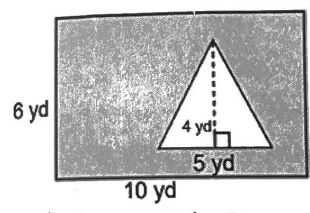
$$A_{\circ} = 3.14(2)(2) = 12.56$$

Area of Shaded Region: 50.24 - 12.56 = 37.68 in²

Key

Compound Shapes

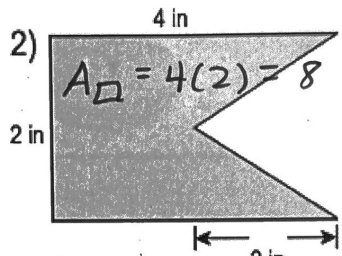
Find the area of each figure, round your answer to one decimal place if necessary.



$$A_{\square} = 6(10) = 60$$

$$A_{\Delta} = \frac{4(5)}{2} = 10$$

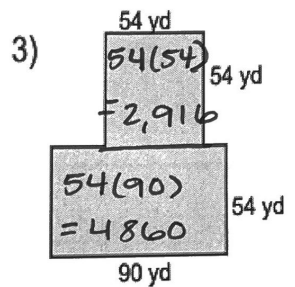
$$\text{Area: } 60 - 10 = 50 \text{ yd}^2$$



$$A_{\square} = 4(2) = 8$$

$$A_{\Delta} = \frac{2(2)}{2} = 2$$

$$\text{Area: } 8 - 2 = 6 \text{ in}^2$$

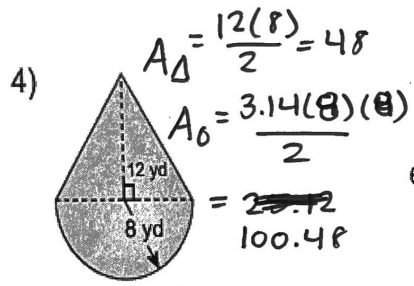


$$54(54) = 2,916$$

$$54(90) = 4,860$$

$$2,916 + 4,860 = 7,776$$

$$\text{Area: } 7,776 \text{ yd}^2$$

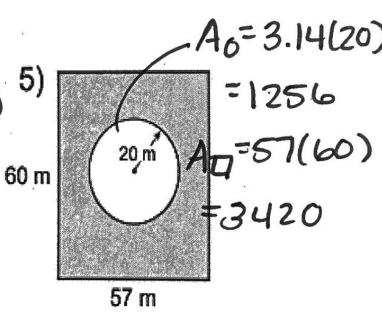


$$A_{\Delta} = \frac{12(8)}{2} = 48$$

$$A_{\circ} = \frac{3.14(8)(8)}{2} = 100.48$$

$$48 + 100.48 = 148.48$$

$$\text{Area: } 148.48 \text{ yd}^2$$

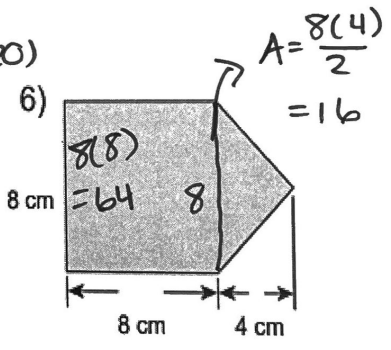


$$A_{\circ} = 3.14(20)(20) = 1256$$

$$A_{\square} = 57(57) = 3249$$

$$3249 - 1256 = 2000$$

$$\text{Area: } 2000 \text{ m}^2$$

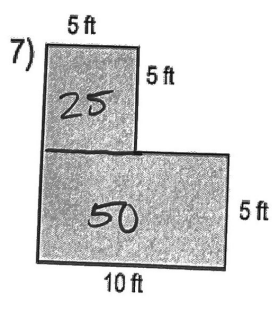


$$A = \frac{8(4)}{2} = 16$$

$$8(8) = 64$$

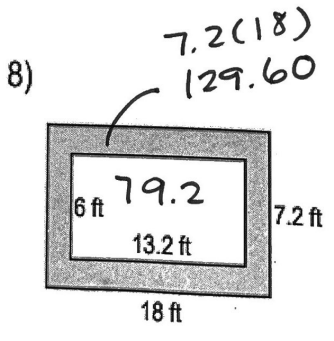
$$64 + 16 = 80$$

$$\text{Area: } 80 \text{ cm}^2$$



$$25 + 50 = 75$$

$$\text{Area: } 75 \text{ ft}^2$$

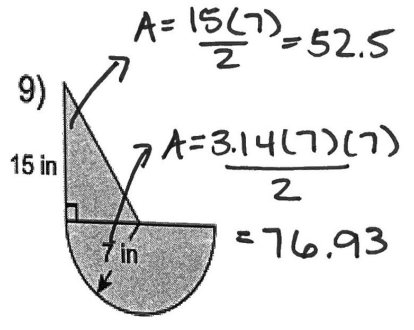


$$7.2(18) = 129.6$$

$$6(13.2) = 79.2$$

$$129.6 - 79.2 = 50.4$$

$$\text{Area: } 50.4 \text{ ft}^2$$



$$A = \frac{15(14)}{2} = 105$$

$$A = \frac{3.14(7)(7)}{2} = 76.93$$

$$105 + 76.93 = 181.93$$

$$\text{Area: } 181.93 \text{ in}^2$$