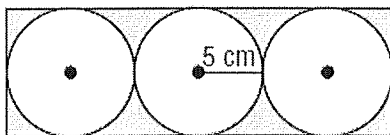


Notes – Composites & Shaded Regions	Name:	
Standard:	Hour:	

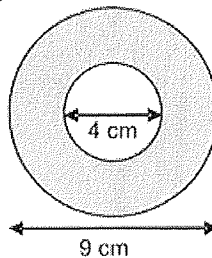
Objective: I can find area of composite figures and shaded regions using subtraction.

Find the area of the shaded region.

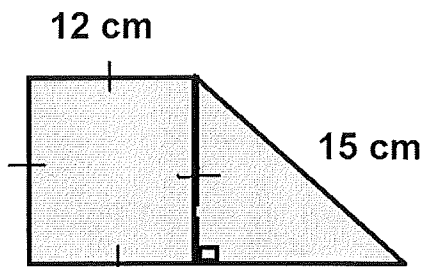
1.



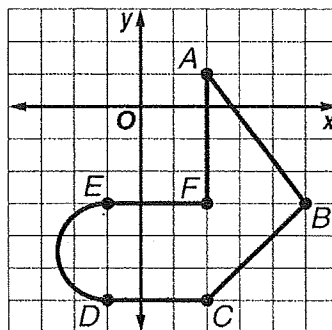
2.



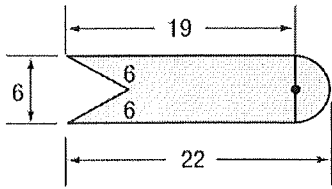
3.



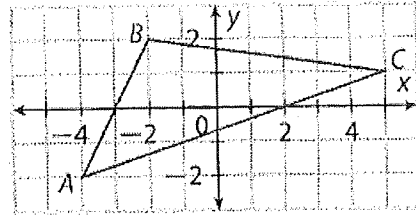
4.



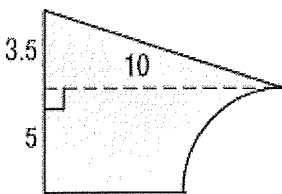
5.



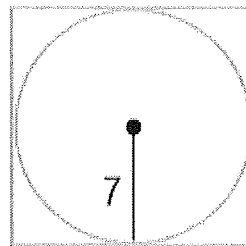
6.



7.



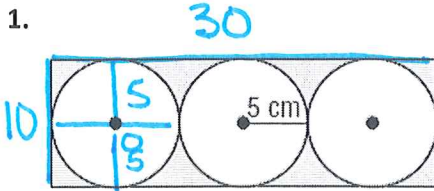
8.



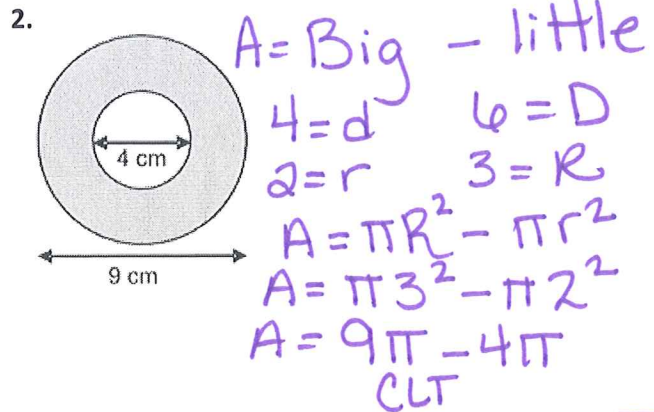
Notes – Composites & Shaded Regions	Name: <i>Key</i>	
Standard:	Hour:	

Objective: I can find area of composite figures and shaded regions using subtraction.

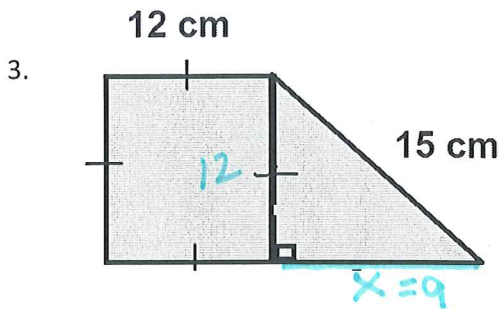
Find the area of the shaded region.



Area of Rectangle - 3 \odot
 $A = b \cdot h - 3(\pi r^2)$
 $A = 30 \cdot 10 - 3\pi 5^2$
 $A = 300 - 75\pi$
Exact Value $A = 300 - 75\pi \text{ cm}^2$
Rounded: $A \approx 64.38 \text{ cm}^2$

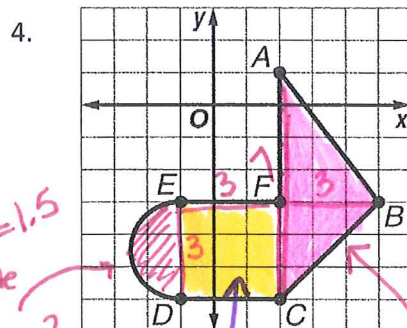


Exact Value $A = 5\pi \text{ cm}^2$
Rounded: $A \approx 15.71 \text{ cm}^2$



① Find x
 $12^2 + x^2 = 15^2$
 $144 + x^2 = 225$
 $x^2 = 81$
 $x = 9$

② $A = \text{Square} + \Delta$
 $A = b \cdot h + \frac{1}{2} b \cdot h$
 $A = 12 \cdot 12 + \frac{1}{2} \cdot 9 \cdot 12$
 $A = 144 + 54$
 $A = 198 \text{ cm}^2$

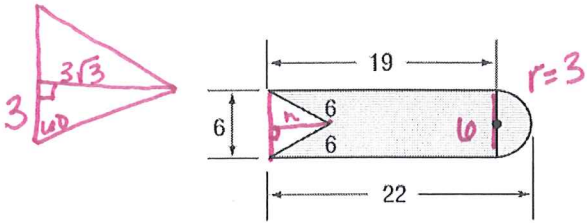


$r = 1.5$
 $= \frac{1}{2} \text{ Circle}$
 $= \frac{1}{2} \pi r^2$
 $= \frac{1}{2} \pi 1.5^2$
 $= \frac{1}{2} \pi 2.25$
 $= 1.125\pi$

$\frac{1}{2} \cdot 3 \cdot 3 = 4.5$
 $3 \cdot 3 = 9$

$A = 10.5 + 9 + 1.125\pi$
 $A = 19.5 + 1.125\pi \text{ units}^2$
 exact value.
Rounded: $A \approx 23.03 \text{ units}^2$

5.



$$A = \frac{1}{2} \text{ circle} + \text{Rect} - \text{triangle}$$

$$A = \frac{1}{2} \pi r^2 + b \cdot h - \frac{1}{2} b \cdot h$$

$$A = \frac{1}{2} \pi 3^2 + 19 \cdot 6 - \frac{1}{2} 6 \cdot 3\sqrt{3}$$

$$A = \frac{1}{2} \pi 9 + 114 + 9\sqrt{3}$$

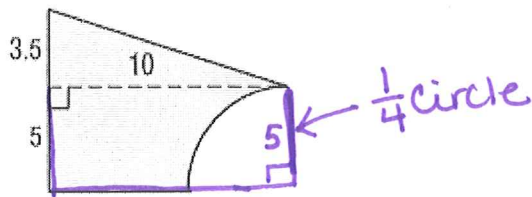
$$A = 4.5\pi + 114 + 9\sqrt{3} \text{ units}^2$$

exact value.

$$A \approx 143.73 \text{ units}^2$$

Rounded

7.



$$A = \text{Triangle} + \text{Rectangle} - \frac{1}{4} \text{ circle}$$

$$A = \frac{1}{2} b \cdot h + b \cdot h - \frac{1}{4} \pi r^2$$

$$A = \frac{1}{2} 10 \cdot 3.5 + 10 \cdot 5 - \frac{1}{4} \pi 5^2$$

$$A = 17.5 + 50 - \frac{1}{4} \pi 25$$

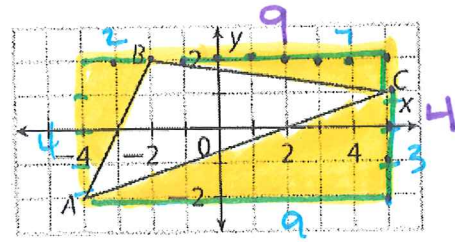
$$A = 67.5 - 6.25\pi \text{ units}^2$$

exact value.

$$A \approx 47.87 \text{ units}^2$$

Rounded

6.

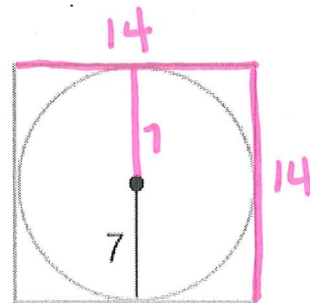


$$= 9 \cdot 4 - \frac{1}{2} 4 \cdot 2 - \frac{1}{2} 7 \cdot 1 - \frac{1}{2} 9 \cdot 3$$

$$= 36 - 4 - 3.5 - 13.5$$

$$A = 15 \text{ units}^2$$

8.



$$A = \text{Square} - \text{circle}$$

$$A = b \cdot h - \pi r^2$$

$$A = 14 \cdot 14 - \pi 7^2$$

$$A = 196 - 49\pi \text{ units}^2$$

exact value

$$A \approx 42.06 \text{ units}^2$$

Rounded