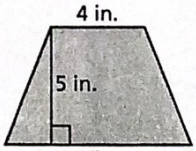
Name Sagona Date

Lesson 8.2 Extra Practice

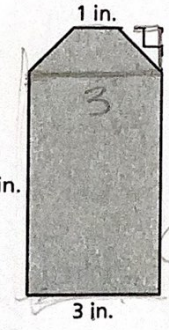
Find the area of the figure.

1. 

$A = \frac{1}{2}h(b_1 + b_2)$

$\frac{1}{2} \cdot 5 \cdot 12$

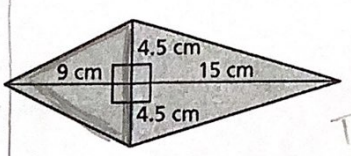
$30\ in^2$

2. 

Trapezoid $\frac{1}{2} \cdot 1 \cdot 4$ $2\ in^2$

Rectangle $A = bh$ $5 \cdot 3$ $15\ in^2$

$15 + 2 = 17 in^2$

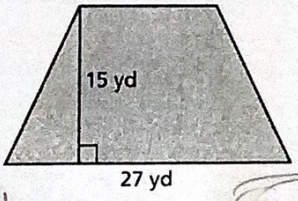
3. 

Top Triangle $\frac{9 \cdot 9}{2} = 40.5$

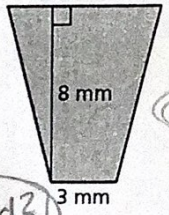
Bottom Triangle $\frac{9 \cdot 15}{2} = 67.5$

$67.5 + 40.5 = 108\ cm^2$

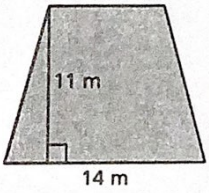
Find the area of the trapezoid.

4. 

$\frac{1}{2} \cdot 15 \cdot 40 = 300 yd^2$

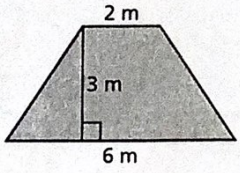
5. 

$\frac{1}{2} \cdot 8 \cdot 10$ $40\ mm^2$

6. 

$\frac{1}{2} \cdot 11 \cdot 22$ $121\ m^2$

7. Your friend finds the area of the trapezoid. Is your friend correct? Explain your reasoning.

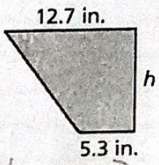


no they multiplied the bases instead of add

$A = \frac{1}{2}(3)(2)(6) = 18\ m^2$

Find the missing dimension of the trapezoid. *Bonus

8. Area = 90 in.^{2}



$A = \frac{1}{2}h(b_1 + b_2)$

$90 = \frac{1}{2} \cdot h(18)$

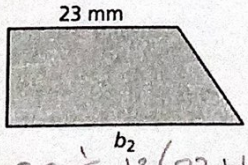
$90 = 9 \cdot h$

$\div 9$

$10 = h$

10 in

9. Area = 357.5 mm^2



$357.5 = \frac{1}{2} \cdot 13(23 + b)$

$357.5 = 6.5(23 + b)$

$357.5 = 149.5 + 6.5b$

-149.5

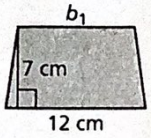
$208 = 6.5b$

$\div 6.5$

$32 = b$ mm

*Bonus

10. Area = 77 cm^2



$77 = \frac{1}{2} \cdot 7(b + 12)$

$77 = 3.5(b + 12)$

$77 = 3.5b + 42$

-42

$35 = 3.5b$

$\div 3.5$

$10 = b$ cm