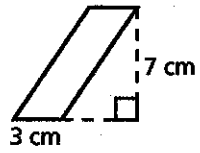
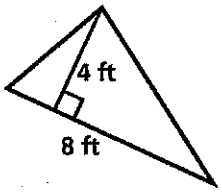
Name: SAMPLE Date: _____

6th Grade GREEN CHAPTER 4 Practice 1

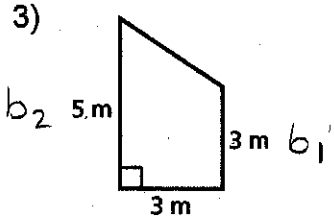
Find the area of the parallelogram, triangle, or trapezoid . (2pts each)

1) 

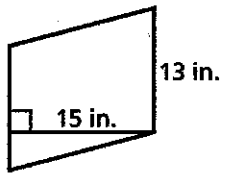
$3 \times 7 = 21 cm^2$

2) 

$\frac{8 \times 4}{2} = 16 ft^2$

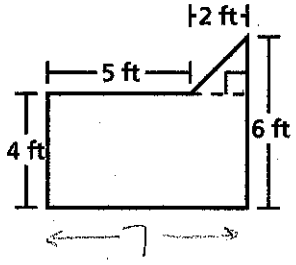
3) 

$\left(\frac{3+5}{2}\right) \times 3 = 12 m^2$

4) 

$$\begin{array}{r} {\scriptstyle 1} \\ 15 \\ \times 13 \\ \hline 45 \\ +150 \\ \hline 195 \end{array} \; in^2$$

Find the area of the composite figure. (3pts each)

5) 

▭ $4 \times 7 = 28$

△ $\frac{2 \times 2}{2} = 2$

$28 + 2 = 30 ft^2$

Answers

1) $21 cm^2$

2) $16 ft^2$

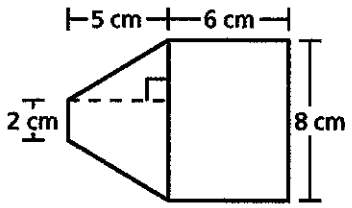
3) $12 m^2$

4) $195 in^2$

5) $30 ft^2$

Find the area of the composite figure. (3pts each)

6)



$6 \times 8 = 48\ cm^2$

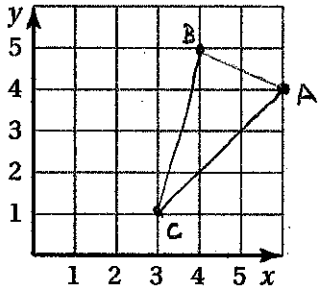
$\left(\frac{8+2}{2}\right) \times 5 = 25\ cm^2$

$73\ cm^2$

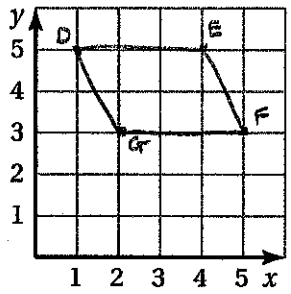
6) $73\ cm^2$

Draw the polygon with the given vertices in a coordinate plane.

7) A(6, 4) B(4, 5) C(3, 1)



8) D(1, 5) E(4, 5) F(5, 3) G(2, 3)



Find the perimeter and the area of the polygon with the given vertices.

9) H(3, 2) I(5, 2) J(5, 7) K(3, 7)

Perimeter $= 2\ell + 2w$

$= 2(2) + 2(5)$

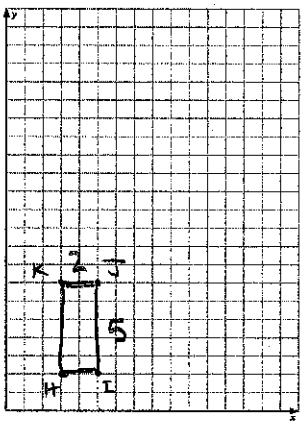
$= 4 + 10$

$= 14$ units

Area $= \ell w$

$= 2 \cdot 5$

$= 10\ units^2$



Perimeter: 14 units

Area: $10\ units^2$

10) P(1, 2) Q(1, 6) R(8, 6) S(8, 2)

Perimeter $= 2\ell + 2w$

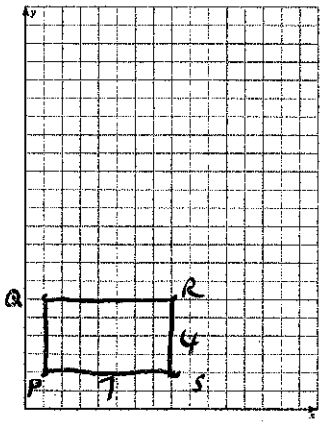
$= 2(7) + 2(4)$

$14 + 8$

22 units

Area $= 7(4)$

$= 28\ units^2$

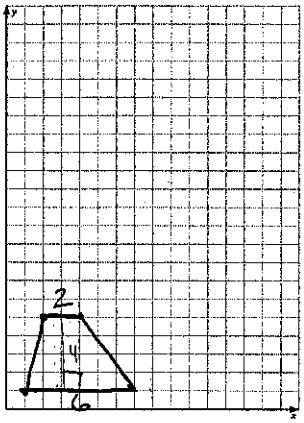


Perimeter: 22 units

Area: $28\ units^2$

11) The vertices of a polygon are P(1, 1) Q(2, 5) R(4, 5) S(7, 1).
What is the SHAPE of the polygon?
What is the AREA of the polygon?

$\left(\frac{2+6}{2}\right) = 4 \times 4 = 16$

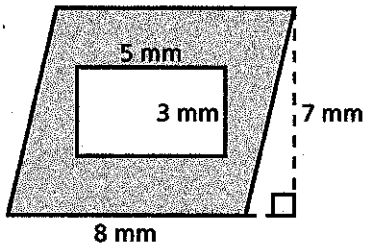


NAME: Trapezoid

Area: 16 units^2

Find the area of the shaded region.

12)



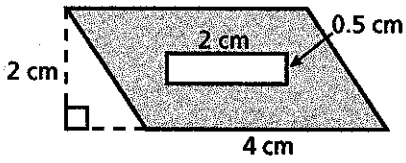
$(8 \times 7) - (5 \times 3)$

$56 - 15$

$41 mm^2$

12) $41 mm^2$

13)



$(2 \times 4) - (2 \times 0.5)$

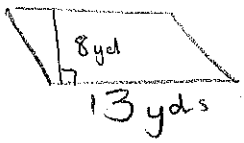
$8 - 1$

$7 cm^2$

13) $7 cm^2$

Find the area.

14) The base of a parallelogram is 13 ~~yards~~ yards and the height is 8 yards. What is the area?

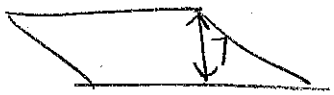


$\begin{array}{r} 13 \\ \times\ 8 \\ \hline 104 \text{ yds}^2 \end{array}$

14) $104 yd^2$

Find the area.

15) The length of a parallelogram is two less than twice the height. The height is 7 centimeters. What is the LENGTH and AREA of the parallelogram?



$2x - 2$

$2(7) - 2$

$14 - 2$

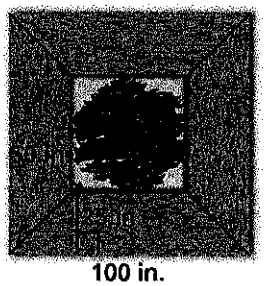
12

$12 \times 7 = 84$

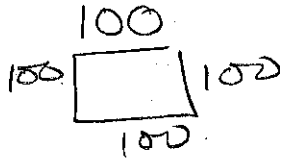
Length: 12 cm

Area: $84\ cm^2$

A bench around the base of a tree is in the shape of a square and is made up of four trapezoids of the same size. Answers the following questions.

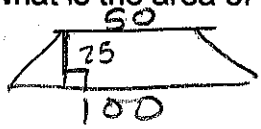


16) What is the perimeter around the outside of the bench?



The perimeter around the outside is: 400 in.

17) What is the area of ONE trapezoid?



$\left(\frac{50+100}{2}\right) 25$

75×25

375

$+1500$

1875

Area of one trapezoid: $1875\ in^2$

18) What is the area of the bench?

1 trapezoid = 1875

4 trapezoids = 1875×4

$7500\ in^2$

OR: 

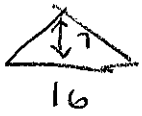
$(100 \times 100) - (50 \times 50)$

$10{,}000 - 2{,}500$

$7{,}500\ in^2$

Area of the bench: $7500\ in^2$

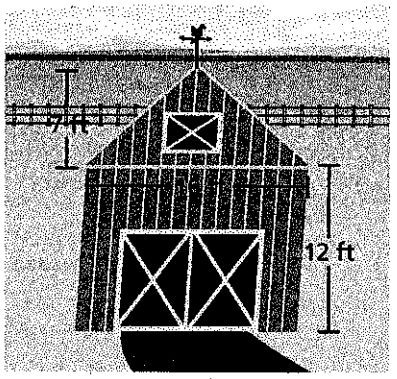
19) This is the front of a partially collapsed barn. Find the area of the front of the barn



$\frac{16 \times 7}{2} = 56$

$16 \times 12 = 192$

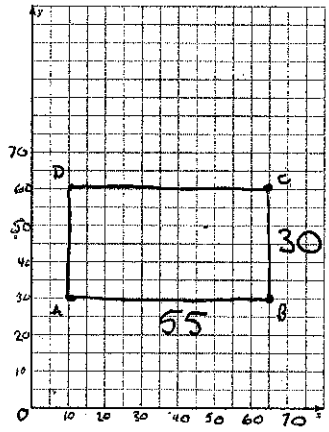
$192 + 56 = 248$



Area of barn: $248 ft^2$

20) On a state map, the vertices of a county are A(10, 30) B(65, 30) C (65, 60) and D(10, 60). The coordinates are measured in miles. What is the area of the county?

$55 \times 30 = 1650$ miles^2



Area of county: $1650 m^2$