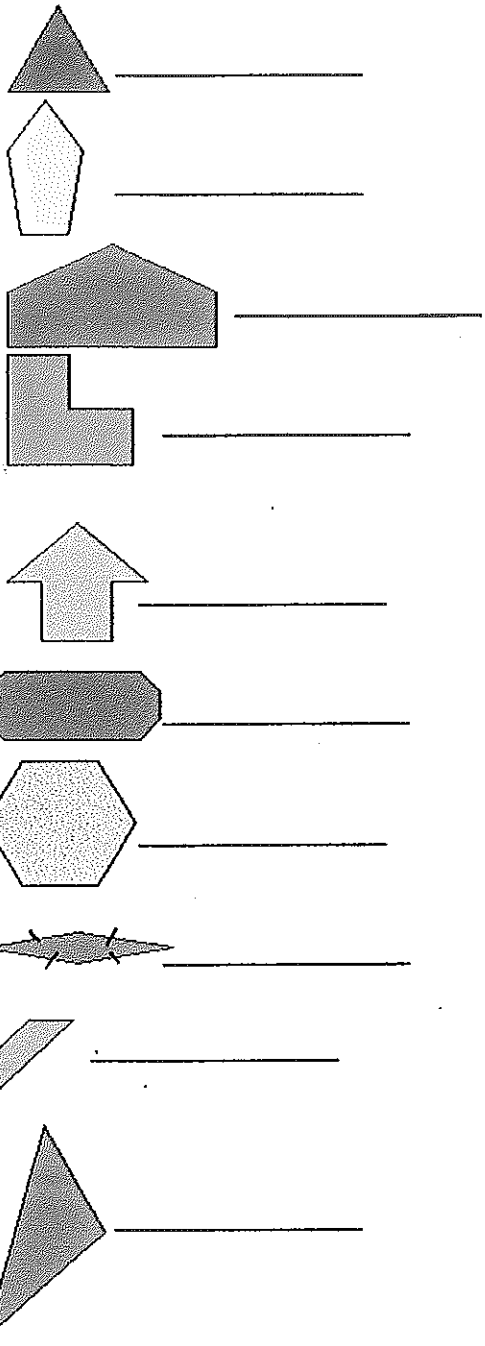
Name _____

Take Home and Check
Boot Camp 1: Polygons

1) Give the name of each polygon.
Use the big category name



Triangle

Pentagon

Pentagon

Hexagon

Septagon or Heptagon

Octagon

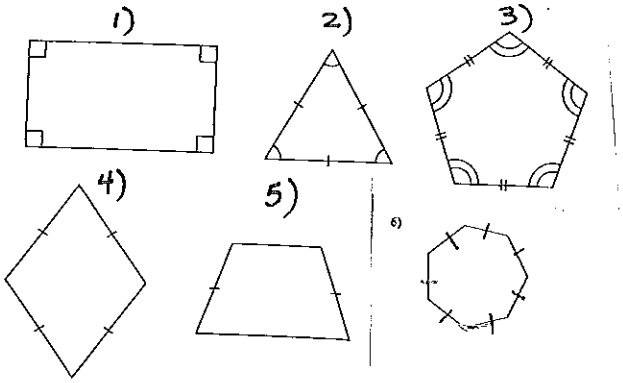
Hexagon

Quadrilateral (Rhombus)

Quadrilateral (Trapezoid)

Triangle

2) Put an x in each shape which is a regular polygon. Explain why are they regular.

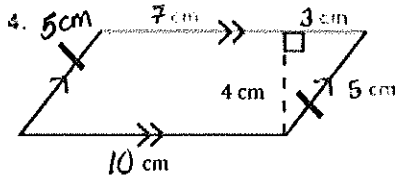


Explanation:

Regulars:
2, 3, 6

Regular polygons have sides that are the same length and angles that are the same size.

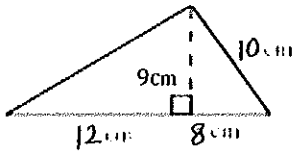
3) Find the area and perimeter of the figure below.



Perimeter =
$7 + 3 + 5 + 10 + 5 =$
$10 + 5 + 15 =$ **30 cm**

Area =
bh $(10)(4) =$ **40cm^2**

4) Find the area of the figure below.

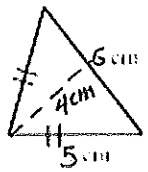


Area =

$$\frac{bh}{2} = \frac{(20)(9)}{2} = \frac{180}{2} =$$

90cm^2

5) Find the perimeter and area of the following figure.



Perimeter =

$5 + 5 + 6 =$ **16 cm**

Area =

$\frac{bh}{2} = \frac{(5)(4)}{2} = \frac{20}{2} =$ **$10 cm^2$**

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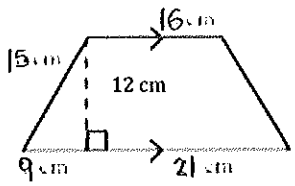
6) Find the area of this figure.



Area =

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

$\frac{1}{2}(12)(30 + 16)$

$6(46) =$

$276 cm^2$

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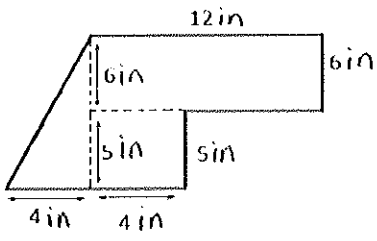
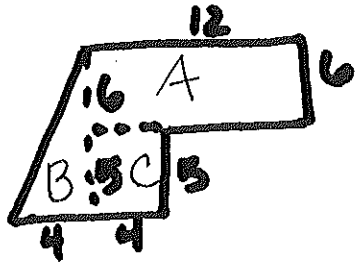
7) Find the area of the figure below.





Total =

$72 + 22 + 25 =$

$119 in^2$

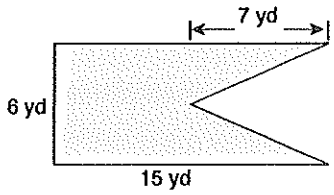
$A = (b)(h)$

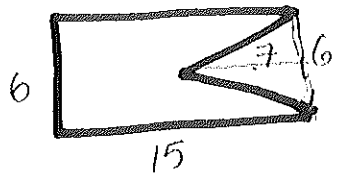
$(12)(6) = 72$

$B = \frac{bh}{2}$ $\frac{(4)(11)}{2} = \frac{44}{2} = 22$

$C = bh = (5)(5) = 25$

11) Find the area of the shape below.



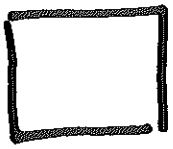


Area of rect =
bh $(15)(6) = 90$

Tri = $\frac{bh}{2} = \frac{(6)(7)}{2} = \frac{42}{2} = 21$

$90 - 21 =$ **69 yd²**

12) The perimeter of a square quilt is 88 inches. What is the area of the quilt?



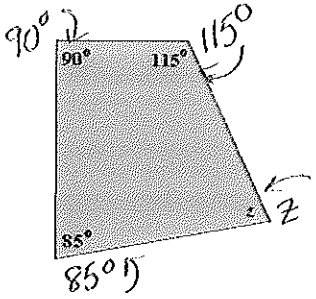
$P = 88$

$88 \div 4 = 22$ / side

$22 \times 22 =$

484 in²

8) What is the measure of angle z?



Explain how you got your answer.

All quadrilaterals have angles = 360.

90 + 115 + 85 = 290

360 - 290 =

$\boxed{70^\circ}$

9) The play area inside a rectangular fence is 250 square feet. If the width of the fence is 5 feet, find the perimeter of the play area.

250 | 5

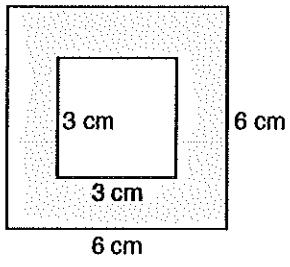
(5)(x) = 250

x = 50

5 | 50 | 5 | 50 | 5

$\boxed{110 \text{ ft}}$

10) Find the area of the shaded region.



Area of large sq =

(6)(6) = 36

Area of small sq =

(3)(3) = 9

36 - 9 = 27

$\boxed{27 \text{ cm}^2}$