

## 9.3 Graphing Day 4

We only have 1 day per week to do online assignments

so on Wednesday you get a bigger assignment, for the week.

Please read through example 1 on page 179

and use it to do the "Show You Know" on page 181. ( I'll start them you finish )

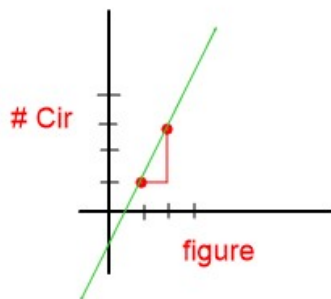
=Please make a t-table ( this works for every graph and is always the back up plan, if your lost)

figure	0	1	2	3	4
# coins		1	3		

steps over  
up

-Make a quick sketch ( no ruler or graph paper just a quick graph with a few steps shown )

Show You Know



-Write an equation ( check to make sure several of the points from the t-table actually work )

# of C = \_\_\_\_\_ Figure + \_\_\_\_\_ ( the standard is  $y = \text{_____} x + \text{_____}$  ours is specific )

-From the equation we can find any figure or any # of circles by solving using algebra.

You should get 141 and 42 for your answers. Please ensure you fully understand.

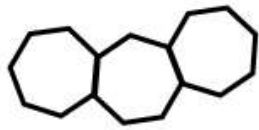
**Hint** - Use the T-table to make your equation, ( How much it grows and y intercept )

Not the picture where you try and figure out the pattern.

Then go on to the assignment

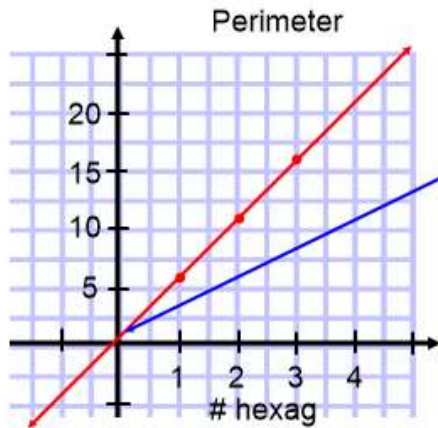
Page 183 Questions 1-5, 8, 9, 12, 13, 15, 16, 17 ( please mark your work )

6) A heptagon has 7 sides  
 so we think 7 \_\_\_ minus something wrong, make a t - table to find the patterns



# hexag	0	1	2	3	4
sides (peri)	2	7	12	17	

+1  
 +5  
 we can see the graph goes up 5 each time x goes up 1



b = y - intercept  
 = the line crosses the y - axis at 2

So the equation is  
 $sides = 5 ( \# \text{ hexagons } ) + 2$

c) So the equation is  $p = 5 h + 2$  so the figure with 12 heptagons we make  $h = 12$   
 $p = 5 ( 12 ) + 2$   
 $p = 60 + 2 = 62$  So a figure with 12 hexagons has a 62 cm perimeter

d) how many heaxagons on a shape with a 112 cm perimeter

$$p = 5 h + 2$$

$$112 = 5 h + 2$$

Subtract 2 from each side and cancel

$$\frac{110}{5} = \frac{5 h}{5}$$

Divide both sides by 5 and cancel

$$22 = h$$

So the shape with a 112 cm perimeter has 22 heptagons

e) can the shape have  $p = 74$  cm

$$p = 5h + 2$$

$$74 = 5h + 2$$

$$\begin{array}{r} -2 \\ -2 \end{array}$$

$$\frac{72}{5} = \frac{5h}{5}$$

$$14.4 = h$$

So no the perimeter of a hexagon shape cannot equal 74 cm.