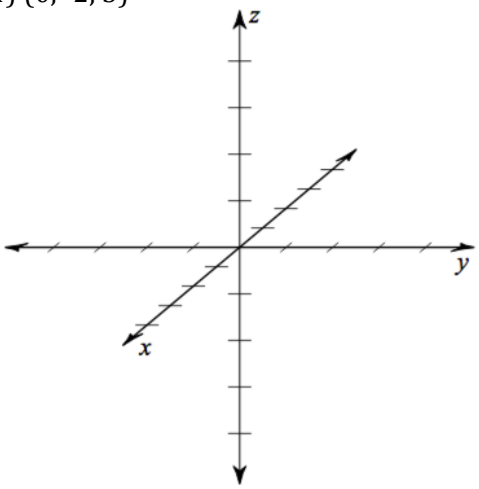
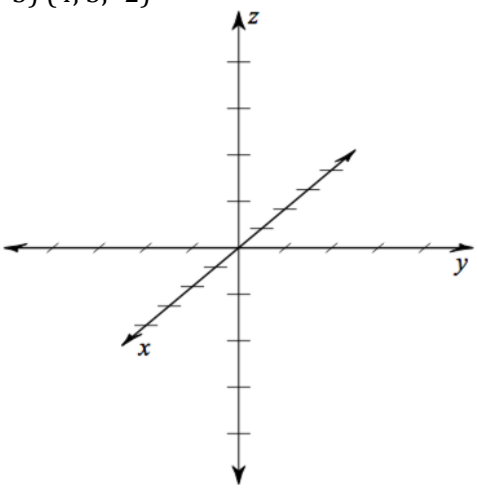
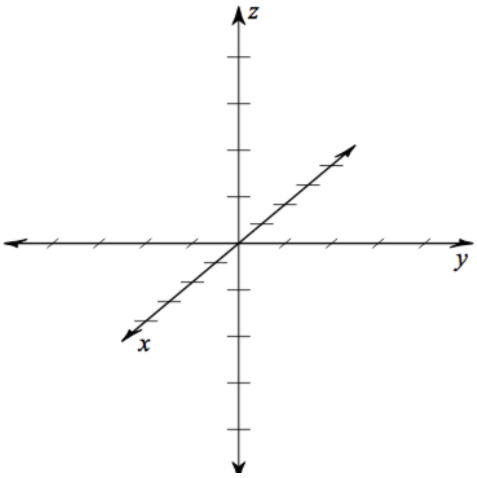
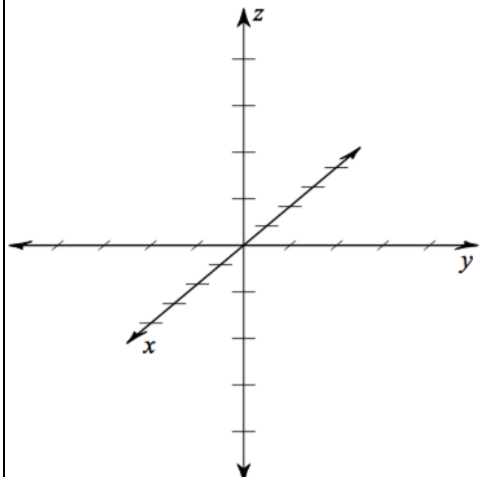
Unit 13 Corrective Assignment: Coordinate Systems

NAME:_____

Find the next two terms and describe how the sequence is derived. 1 point each.

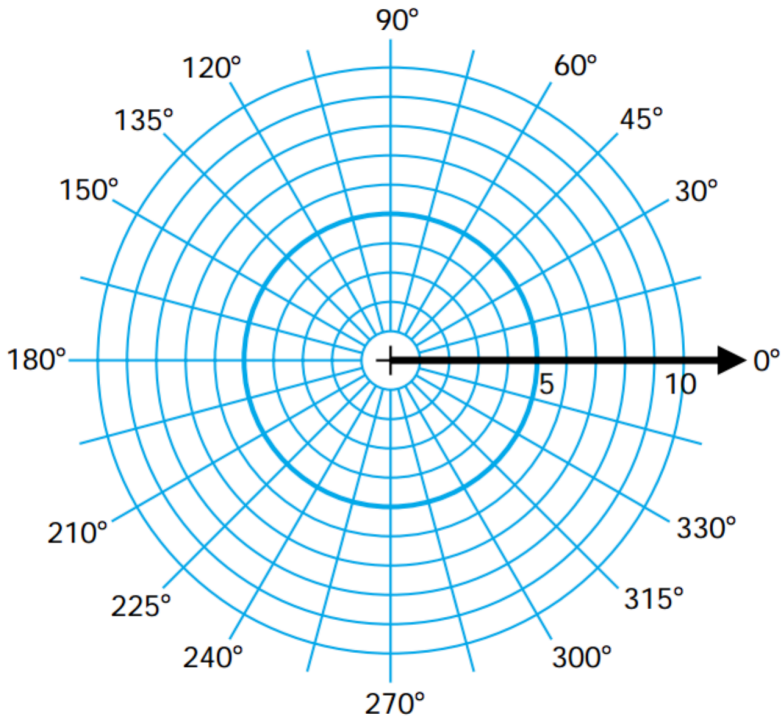
1) -2, 6, -18, 54	2) 5, 8, 13, 20, 29	3) 0, 1, 2, 3, 6, 11, 20

Directions: Plot each point. Show either box or arrow marks. (2 pts each)		**Directions: Find the midpoint and distance of each. Round to nearest tenth. (3 pts)**
4) (0, -2, 3) 	5) (4, 3, -2) 	6) (7, 6, 10) and (-3, -10, -5) Midpoint: Distance:
Directions: Find the intercepts and graph the equation. (3 pts each)		**Directions: Find the midpoint and distance of each. Round to nearest tenth. (3 pts each)**
7) x + 2y – 2z = 2 x-intercept: y-intercept: z-intercept: 	8) 12x - 16y - 24z = -48 x-intercept: y-intercept: z-intercept: 	9) (4, -7, 0) and (-9, 2, -3) Midpoint: Distance:

Directions: Plot each point and label it. (2 pts each)

10) $(8, 135°)$ LABEL IT A!

11) $(-5, 60°)$ LABEL IT B!



Directions: Convert the following from Polar to Rectangular (round to 3 decimal places). (3 pts each)

12) $\left(-\mathbf{4}, \frac{2\pi}{3}\right)$

13) $(5, 150°)$

Directions: Convert the following from Rectangular to Polar where $r \geq 0$, and $0° \leq \theta \leq 360°$ (round to nearest tenth of a degree) (3 pts)

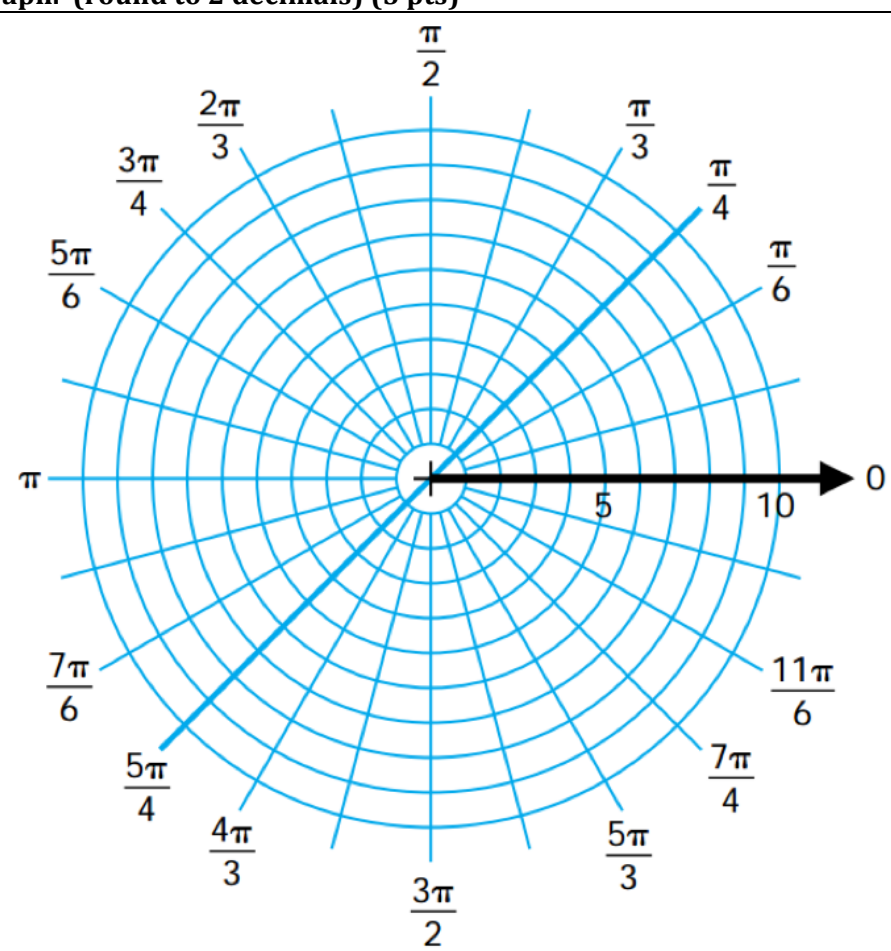
14) $(4, -4)$

15) $(-4, 6)$

Directions: Complete the table and plot the graph. (round to 2 decimals) (5 pts)

16) $r = 6 + \sin\theta$

θ	r
$\frac{3\pi}{2}$	
$\frac{11\pi}{6}$	
0	
$\frac{\pi}{6}$	
$\frac{\pi}{3}$	
$\frac{\pi}{2}$	
$\frac{2\pi}{3}$	
$\frac{5\pi}{6}$	
π	
$\frac{7\pi}{6}$	



Unit 13 Application and Extension

1) Brust (x), Bean (y) and Kelly (z) decide to see how long it will take their classes combined to pass 20,000 Mastery Checks. Brust's kids pass 70 MCs a day, Bean's pass 63 and Kelly's pass 42 a day.

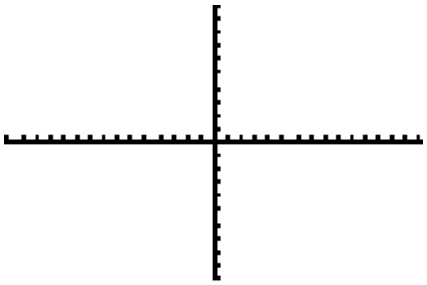
a) Write an equation in terms of x, y and z for the above situation. (2 pts)

b) Write the above equation in terms of the amount of days Brust's kids take MCs. . (Solve for x). (2 pts)

c) Suppose Bean participates for 140 days, and Kelly participates for 175 days, how many days would Brust need to participate in order for the guys to reach their goal? (2 pts)

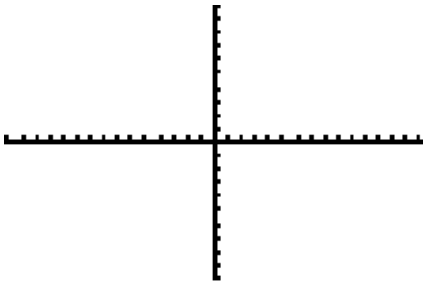
Directions: Use your graphing calculator to sketch each graph and answer the question. (2pts each)

2) $r = 4\cos\vartheta$



What do you need to do to the equation to reflect the graph in the y-axis?

3) $r = 3 + \cos 3\theta$



What happens to the graph when you change to $r = 3 - \cos 3\theta$?