ALGEBRA II
UNIT 8 WS #2

NAME:

FOR THE FOLLOWING, GIVE THE AMPLITUDE, PERIOD, FREQUENCY, AND STARTING POINT

1) $y = 3\sin(x+50°)+2$

2) $y = \frac{1}{4}\sin(3(x+60°))-4$

3) $y = 6\sin(\frac{1}{2}x)+7$

4) $y = \frac{1}{2}\sin(\frac{1}{2}(x-20°))+5$

5) $y = \sin(x-50°)-6$

6) $y = 3\sin(x+\frac{\pi}{3})-2$

7) $y = \sin(x-\frac{\pi}{4})+2$

8) $y = 1.5\sin(x+\frac{\pi}{2})+\frac{1}{2}$

9) $y = \sin(x+\frac{5\pi}{6})+2$

10) $y = 3\sin(x-\frac{2\pi}{3})-1$

WRITE THE EQUATION FOR THE GRAPH $y=\sin x$ WITH THE FOLLOWING ADJUSTMENTS:

11) Amplitude = $\frac{1}{2}$
Frequency = 6
Shifted 90° left

12) Amp = 2
Freq = 12
Shifted 15° right
Shifted 7 units down

13) Amp = 3
Freq = $\frac{1}{3}$
Starting point: (70°, 0)

14) Amp = $\frac{1}{3}$ $\frac{360°}{45}$ =
Period = 45°
Shifted left 30°
Shifted up 1 unit

15) Amp = $\frac{1}{12}$
Period = 2880°
Starting pt: (120°, 3)

16) Amp = $\frac{1}{2}$
Period = 720°
Up 2 units, left 270°

17) Amp = $\frac{1}{4}$

Freq = 1

shifted $\frac{\pi}{2}$ left

18) Amp = 2

Freq = 2

shifted $\frac{3\pi}{2}$ right

shifted up 2 units

19) Amp = $\frac{1}{2}$

Frequency = $\frac{1}{2}$

shifted $\frac{\pi}{3}$ right ar

shifted 1 unit d

20) Amp = 2

Period = 4π

shifted left $\frac{\pi}{6}$

shifted down 2 units

21) Amp = $\frac{1}{4}$

Period = 6π

shifted π right

$\frac{2\pi}{6\pi} = \frac{1}{3}$

22) Amp = 1

Period = π

shifted up 3 units.

ON GRAPH PAPER, GRAPH THE FOLLOWING USING RADIANS. BE SURE TO SCALE YOUR AX

23) $y = \sin(x + \frac{\pi}{2})$

24) $y = \sin(x - \frac{\pi}{4}) + 2$

25) $y = 3\sin(x + \frac{\pi}{3}) - 1$

26) $y = \frac{1}{2}\sin(2x)$

27) $y = 2\sin(x + \frac{\pi}{2}) + \frac{1}{2}$

28) $y = \sin(x - \frac{2\pi}{3}) - 1$