Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_\_\_\_\_\_

Graphs of Sinusoidal Functions

1. Match the following graphs to the equations at the bottom. Write the letter and equation next to each number.

|  |  |
| --- | --- |
| 1) | 2) |
| 3) | 4) |
| 5) | 6) |

|  |  |  |  |
| --- | --- | --- | --- |
| 1. y = -3cosx – 1
 | 1. y = 3sin(2x)
 | C.) y = ½sin( ½x) | D) y = 2sinx – 3 |
|  E) y = sin( ½ x) + 3 |  F) y = cos 2(x - $\frac{π}{4} $) | G) y = cos(x + $\frac{π}{4}$) + 2 |

B.) Write the equation for the following :

  

1) *in terms of sine* 2) *in terms of cosine*

3.)  4.) 

 *In terms of cosine In terms of sine*

 

5) *in terms of sine*

C) Write an equation for the following:

1) A sine curve with period π and amplitude of -3. 2) A cosine curve shifted down 7 with frequency ½.

3) A sine curve shifted left 4, down 3 with an 3) A cosine curve with period of , shifted right 1.

D) **Review:**

40km/h

 300 km/h 65ᵒ

|  |  |
| --- | --- |
| A plane flying at a speed of 3oo km per hour with a bearing of N 65ᵒ W encounters a wind blowing north with a speed of 40 km per hour. | 1) Use Law of Cosines to find the resultant (combined) speed of the wind and the plane. 2) Use Law of Sines to find the plane’s new bearing. |