

1- Find the coordinates of each point - exact answers

2- Then write each coordinate point in terms of $\sin \theta$ and $\cos \theta$ when $\theta \geq 0$

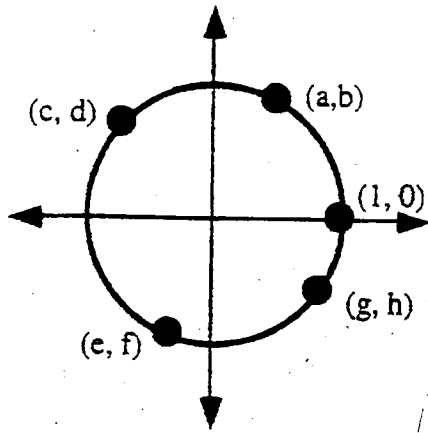
(-cos, -sin)

- A $(\cos 30^\circ, \sin 30^\circ)$
- B $(\cos 45^\circ, \sin 45^\circ)$
- C $(\cos 120^\circ, \sin 120^\circ)$

- D $(\cos 30^\circ, \sin 30^\circ)$
- E $(\cos 135^\circ, \sin 135^\circ)$
- F $(\cos 240^\circ, \sin 240^\circ)$
- G $(\cos 180^\circ, \sin 180^\circ)$
- H $(\cos 90^\circ, \sin 90^\circ)$

3- Write each coordinate point in terms of $\sin \theta$ and $\cos \theta$ when $\theta \leq 0$

- A $(\cos(-45^\circ), \sin(-45^\circ))$
- B $(\cos(-45^\circ), \sin(-45^\circ))$
- C $(\cos(-240^\circ), \sin(-240^\circ))$
- D $(\cos(-60^\circ), \sin(-60^\circ))$
- E $(\cos(-225^\circ), \sin(-225^\circ))$
- F $(\cos(-120^\circ), \sin(-120^\circ))$
- G $(\cos(-180^\circ), \sin(-180^\circ))$
- H $(\cos(-270^\circ), \sin(-270^\circ))$



A. Give the exact numerical value of $g^2 + h^2$. 1

B. Give one equation with two variables whose solutions are all the points on the circle in the illustration above. $x^2 + y^2 = 1$

C. By referring to the illustration above, give the letter that best matches each of the following:

- | | | | | | |
|-----------------------|----------|----------------------|----------|-----------------------|----------|
| 1. $\sin(-380^\circ)$ | <u>h</u> | 2. $\cos(130^\circ)$ | <u>c</u> | 3. $\sin(-105^\circ)$ | <u>f</u> |
| 4. $\cos(-230^\circ)$ | <u>c</u> | 5. $\sin(700^\circ)$ | <u>h</u> | 6. $\cos(255^\circ)$ | <u>e</u> |

2. Give exact values

a. $\sin 60^\circ$ $\frac{1}{2}\sqrt{3}$

f. $\cos 90^\circ$ 0

b. $\cos 120^\circ$ $-\frac{1}{2}$

g. $\sin 240^\circ$ $-\frac{1}{2}\sqrt{3}$

c. $\sin 270^\circ$ -1

h. $\cos 210^\circ$ $-\frac{1}{2}\sqrt{3}$

d. $\cos 135^\circ$ $-\frac{1}{2}\sqrt{2}$

i. $\sin -30^\circ$ $-\frac{1}{2}$

e. $\sin 315^\circ$ $-\frac{1}{2}\sqrt{2}$

j. $\cos 225^\circ$ $-\frac{1}{2}\sqrt{2}$

3. Label these points with Exact Coordinates Note: these are not unit circle
 (do not write in terms of $\cos \theta$ or $\sin \theta$)

$(-2\sqrt{3}, 2)$

