

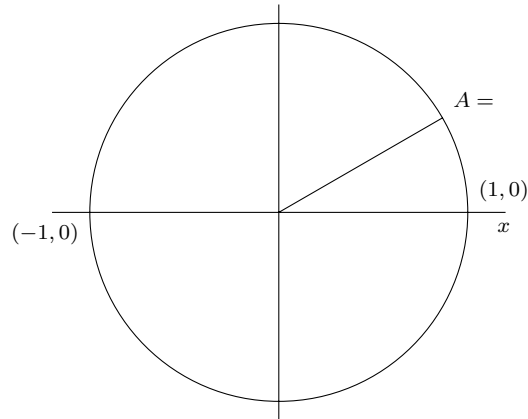
29 May 2018

Name: .

**Do Now Quiz: Using the unit circle and the law of sines**

Closed book & no notes. Show work in space provided. Work problems in order.

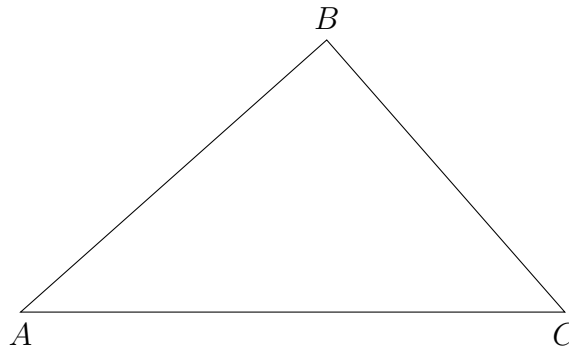
1. Given a circle with radius of one, centered on the origin. An angle with measure  $30^\circ$  is placed in standard position. Mark the point  $A$ , the intersection of the circle and angle ray, as an ordered pair.



- (a) Write down the value of  $\sin 30^\circ$
- (b) Write down the value of  $\cos 30^\circ$
2. Triangle  $ABC$  has  $\hat{A} = 40^\circ$ ,  $AB = 7$  cm, &  $BC = 6$  cm. Find the measure of  $\hat{C}$ :

- (a) Write down the law of sines, substituting appropriate values.

- (b) Solve for the measure of angle  $C$

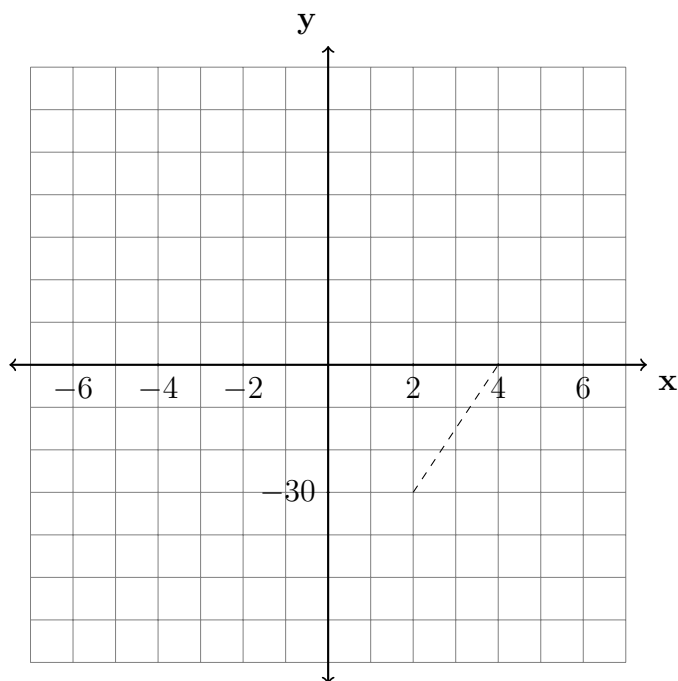


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**Do Now Quiz: Using the unit circle and the law of sines****Early finishers**

3. The polynomial  $f(x) = x^3 - 13x - 12$  is shown on the graph below. What is the slope between the local minimum at  $x = 2$  and the  $x$ -intercept at  $x = 4$ ? This is called the *average rate of change* between  $x = 2, 4$ .



4. Simplify the expression  $32^{\frac{1}{5}}$ . Explain your result.