

# 1b - Q1 standard position assignment.docx

Wednesday, February 26, 2020 4:01 PM



1b - Q1  
standard...

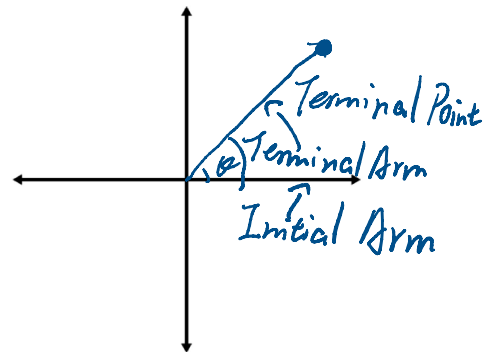


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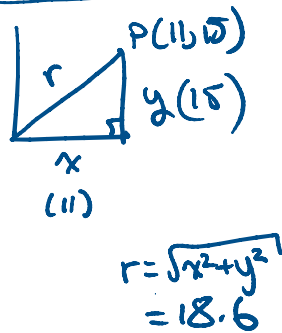
**5.1 STANDARD POSITION QUADRANT 1**

Name: \_\_\_\_\_ Blk: \_\_\_\_\_

1. Draw a diagram with the following labels:
  - a. Initial Arm
  - b. Terminal Arm
  - c.  $\theta$
  - d. Terminal Point



2. Point  $P(11, 15)$  is the terminal point of an arm in standard position. Write out the primary trigonometric ratios for  $\theta$ .

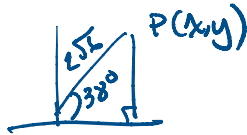


$$\sin \theta = \frac{15}{18.6}$$

$$\cos \theta = \frac{11}{18.6}$$

$$\tan \theta = \frac{15}{11}$$

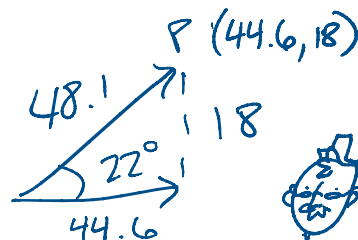
3. What are the coordinates for the terminal point of an arm with  $r = 2\sqrt{6}$  and  $\theta = 38^\circ$ ? Round your answers to one decimal place.



$$x = r \cos \theta = 2\sqrt{6} \cos 38 = \boxed{13.9}$$

$$y = r \sin \theta = 2\sqrt{6} \sin 38 = \boxed{13.0}$$

4. An arm in standard position has an angle of  $22^\circ$ . The terminal point has a  $y$  coordinate of 18. How long is this arm and what are the complete coordinates of the terminal point?



Terminal arm: 48.1

terminal arm:  $\boxed{\sqrt{(44.6, 18)}}$



Mr. Gentleman:  
condemns you!