

Mrs. Behnke

**PART B: You may use a calculator for part B.**1. For  $\triangle PQR$ ,  $p=5$ ,  $q=8$  and  $\angle P = 10^\circ$ , determine the value of  $\angle Q$ .2. For  $\triangle KMN$ ,  $k=10$ ,  $m=9$  and  $n=12$ , determine the value of  $\angle N$ .

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**PART A: No Calculator allowed for this part of the quiz.****When you finish part A, hand it in and get part B.**

1. Complete each of the following tables. (2 marks)

Related Acute Angle, $\beta$	Quadrant	Sketch	Principal Angle, $\theta$
$40^\circ$	2		

Related Acute Angle, $\beta$	Quadrant	Sketch	Principal Angle $\theta$
			$230^\circ$

2. The point  $(4, -4)$  is on the terminal arm of an angle  $\theta$  in standard position.

a) Draw the triangle. (1 mark)

b) Find the exact values for  $\sin \theta$  and  $\cos \theta$  and  $\tan \theta$ . (4 marks)c) Calculate the related acute angle,  $\beta$ , and the principal angle,  $\theta$ . (2 marks)3. Given  $\sin A = \frac{-\sqrt{3}}{2}$ . Find all values of  $\angle A$ , to the nearest degree if  $0^\circ \leq A \leq 360^\circ$ . Draw a diagram to support your answer. (3 marks)4. Determine the exact value of the trig ratio  $\cos 225^\circ$ . Draw a diagram to support your answer. (2 marks)