

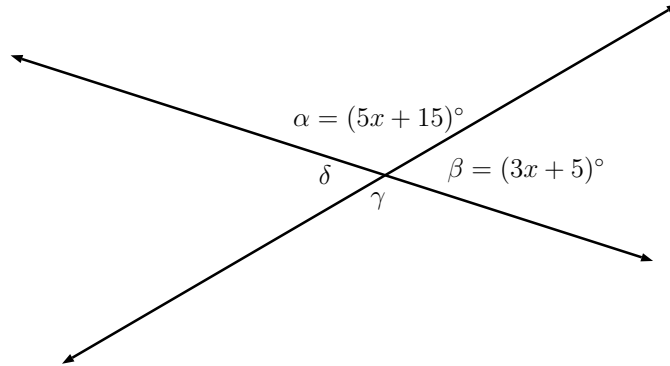
# Math 1613 - Trigonometry

Quiz #2 - 2018.08.24

Solutions

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1. Given the picture below, find the exact value of each of the four angles  $\alpha$ ,  $\beta$ ,  $\delta$ , and  $\gamma$ .



We can solve for  $\alpha$  and  $\beta$  by finding  $x$  first. To do this, we use the fact that  $\alpha + \beta = 180^\circ$ . Thus we have

$$5x + 15 + 3x + 5 = 180 \rightarrow 8x = 160 \rightarrow x = 20.$$

This gives  $\alpha = 115^\circ$  and  $\beta = 65^\circ$ . We also have that  $\beta = \delta$  and  $\alpha = \gamma$ .

2. Someone wants to buy "Reynolds Wrap". What they are wanting to buy is:

- (a) **aluminum foil**
- (b) plastic wrap
- (c) wax paper
- (d) a novelty sandwich

(Problem 2 will not affect your grade in any way, it is merely a survey question)