

Name: _____

Let's say we have 2 batches of paint one of which is quick-dry. The paint is unlabeled, and we forgot which was which! We paint 5 boards from batch 1 and record the drying time. We think batch 1 is quick dry. We also believe that the drying times are normally distributed with a standard deviation of 5 min.

$$H_0 : \theta = 25 \text{ min}$$

$$H_1 : \theta = 10 \text{ min}$$

Find δ^* that minimizes $\beta(\delta^*)$ subject to $\alpha(\delta^*) \leq .05$.