

1. A Gold & Brown Co. quality inspector examines a sample of 50 toasters, and finds that 5 are defective. What is the best prediction of the number of defective toasters in a delivery of 300 toasters?
[A] 30 [B] 5 [C] 295 [D] 50
2. A Radio Hut quality inspector examines a sample of 50 radios, and finds that 4 are defective. What is the best prediction of the number of defective radios in a delivery of 300 radios?
[A] 24 [B] 296 [C] 4 [D] 50
3. Mark has a circular swimming pool in he backyard. He measures the diameter as 228 inches. The actual diameter of the pool is 217 inches. Mark wants to install a rail along the top edge of the swimming pool. If he uses his measurement, how many inches of extra rail will he buy? How does this difference relate to Mark's original measurement error?
4. Julee has a circular swimming pool in she backyard. She measures the diameter as 284 inches. The actual diameter of the pool is 270 inches. Julee wants to install a rail along the top edge of the swimming pool. If she uses her measurement, how many inches of extra rail will she buy? How does this difference relate to Julee's original measurement error?
5. A student determined the density of zinc to be 6.63 g/cm^3 . The correct value is 7.13 g/cm^3 . Find the percent error in her measurement.
6. A student determined the density of iron to be 5.76 g/cm^3 . The correct value is 7.87 g/cm^3 . Find the percent error in his measurement.
7. The Stamp-M-Out Company manufactures rubber stamps. An inspector finds that there are 10 defective stamps in a sample of 700.
 - a) What is the probability that a randomly selected stamp will be defective?
 - b) According to Stamp-M-Out Company quality control standards no more than 3.5% of stamps produced may be defective. Does Stamp-M-Out Company need to adjust its manufacturing process to meet this standard?
8. The Black Banty Company manufactures egg timers. An inspector finds that there are 21 defective timers in a sample of 200.
 - a) What is the probability that a randomly selected timer will be defective?
 - b) According to Black Banty Company quality control standards no more than 3% of timers produced may be defective. Does Black Banty Company need to adjust its manufacturing process to meet this standard?

Grade 7 Practice 7.RP.A.3: Error

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[1] A _____

[2] A _____

35 inches extra. The difference equals

[3] $\pi \times$ Mark's measurement error. _____

44 inches extra. The difference equals

[4] $\pi \times$ Julee's measurement error. _____

[5] 7.0% _____

[6] 26.8% _____

[7] 0.014, no _____

[8] 0.105, yes _____