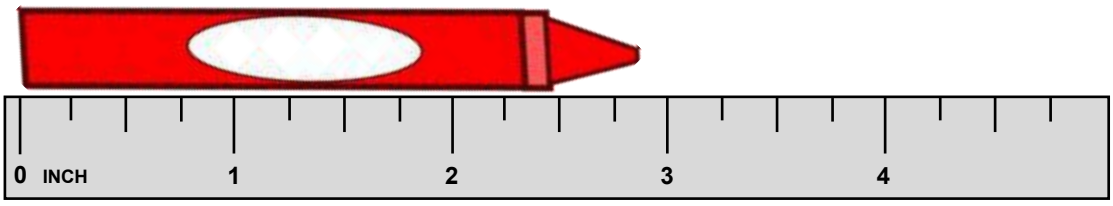
Measuring lengths, precision & errors

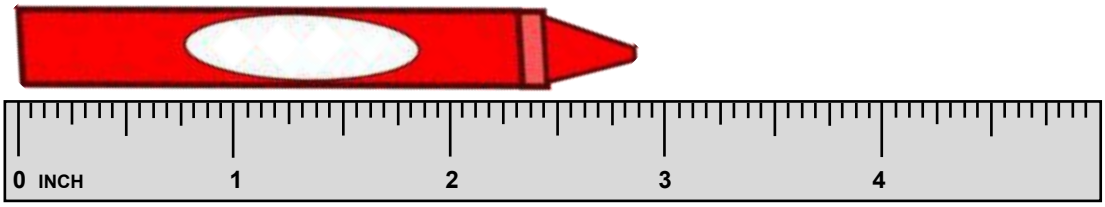
Grade 5 Measurement Worksheet

Ruler A



How long is the crayon? _____

Ruler B



How long is the crayon? _____

1. Which ruler is more precise, A or B? Why?

   _____

2. Are your measurements exact? Explain.

   _____

3. A scientist measured the length of an asteroid and wrote in his report that it was 530 +/- 4 in long. Why did the scientist write the length like that?

   _____

4. What do you think the minimum length of the asteroid is?

   _____

5. What do you think the maximum length of the asteroid is?

   _____

Answers

Ruler A	
How long is the crayon?	Between 2 3/4 and 3 in

Ruler B	
How long is the crayon?	2 14/16 or 2 7/8 in

1. Which ruler is more precise, A or B? Why?

   Ruler B is more precise because it has smaller divisions.

2. Are your measurements exact? Explain.

   All physical measurements contain some uncertainty.

3. A scientist measured the length of an asteroid and wrote in his report that it was 530 +/- 4 in long. Why did the scientist write the length like that?

   The scientist knew that his measurement was not exact, and wanted to show that the length was between 526 and 534 in.

4. What do you think the minimum length of the asteroid is?

   526 in

5. What do you think the maximum length of the asteroid is?

   534 in