

QUESTIONS TO HAND IN – INTRODUCTION

NAME _____

LAB DAY/TIME _____

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1. A clerk in a hardware store can measure length with a ruler to the nearest ± 1 mm. If he measures out a length of chain to be 50 cm, what is the percentage uncertainty in the measurement?
2. The same clerk measures out a 50 cm x 150 cm piece of screen. What is the best value for the area of the screen?
3. Assuming the uncertainty in each length is still ± 1 mm, what is the percentage uncertainty in the area measurement?
4. A carpenter measures the placement of studs in a wall every 16 inches. When she tries to fit an 8 ft length of wallboard, how many studs should it cover, not counting the very first one?
5. Assuming that she can allow herself a total error of $\pm \frac{3}{4}$ inch (half the width of a 2 x 4), what is the maximum uncertainty she can tolerate in the placement of each stud?