

Student Practice  
Practice Version A

1. What is or how might you describe an estimate? (This is the number 1 issue on this quiz)  
*a # when you don't know where the accuracy cuts off. 500 cats*

2. Indicate the number of significant figures and draw a line down where the tool lost accuracy.

- a. 0.005 meters      b. 200 meters      c. 1.50E4 meters      d. 22 meter sticks      e. 0.050 mm
- (1)                      (1)                      3                      ∞                      (2)

3. For the following number 25.94, round to the number of significant figures in parenthesis.

- a. (1)                      b. (2)                      c. (3)                      d. (5) Use scientific Notation

4. 26 cats divided by 2 boxes. Provide the answer with correct significant digits. *2.5940 E1*
- ∞                      ∞                      13 cats ∞*

5. a.  $22.0 + 200 =$                       b.  $1000 \text{ meters} - 450 \text{ meters} =$
- (200.)*                       $\begin{array}{r} 200. \\ 22.0 \\ \hline 220. \end{array}$                        $\begin{array}{r} 1000 \\ 450 \\ \hline 550 \end{array}$
6. a.  $33 \text{ lbs} * 5 \text{ people} =$                       c.  $150 / 32.0 =$
- a ∞*                       $4.68 \rightarrow (4.7)$                       *(1000.)*
- (6.6)*

Student Practice  
Practice Version B

1. A student indicates that 0.00050 is an estimate. Indicate why this is not an estimate.

*Estimates you don't know → tool cuts off here*

2. Indicate the number of significant figures and draw a line down where the tool lost accuracy.

- a. 0.080 Liters      b. 0.05 grams      c. 22 cows      d. 1.50E-3      e. 440 cats
- 2                      2                      ∞                      3                      2

3. For the following number 0.00568, round to the number of significant figures in parenthesis.

- a. (1)                      b. (2)                      c. (3)                      d. (5)

4. a.  $1.50E-3 * 25.000 =$                       b.  $25 / 4 \text{ people}$
- 0.006*                      *0.0057*                      *0.00568*                      *0.0056800*
- $0.0375$                        $6.25 \rightarrow (6.3)$

5. a.  $4000 + 200 =$                       b.  $1357 \text{ meters} - 443 \text{ meters} =$
- $4000$                        $914$

6. Convert the value 0.000500 to scientific notation with correct sigfigs.

*(5.00E-4)*                      *need 3 sig figs*

Student Practice  
Practice Version C

1. For the number 500 people: A student suggests this is an exact number. Indicate why this is NOT Exact. *we don't know where error cuts off... it is an estimate*

2. Indicate the number of significant figures and draw a line showing where the accuracy cuts off.

- a. 200 meters (1)      b. 0.00050 grams (2)      c. 1.50E-6 (3)      d. 255 grams (3)      e. 500 cats (1)

3. For the following number 11900.0, round to the number of significant figures in parenthesis.

- a. (1)      b. (2)      c. (3)      d. (5) Use scientific notation

4. a.  $100.0/3 = 33.3$  (4)      b.  $150.0 * 4.1 \text{ people} = 615$  (4) (2)      c. 11900. (3)      d.  $1.1900 \text{ E } 4$  (5)

5. a.  $255 + 24 = 279$  (3)      b.  $500 - 5 = 495$  (Not exact)      c.  $500 - 5 = 495$  (5)      d.  $500 - 5 = 495$  (5)

6. 10000 people attend a rally and 55 people get arrested, how many people are left at the rally?

10000.

$$\begin{array}{r} 10000 \\ - 55 \\ \hline 9945 \end{array} \rightarrow 10000.$$

Preliminary Quiz 7  
Practice Version D

1. Why isn't the value 4.1 people an exact value? What would you need to have an exact value?

*Can't have exactly 4.1 people, I must be measured or estimated to that level of accuracy,*

2. Convert 400 people to scientific notation.

$4 \text{ E } 2$  1513 lbs

3. For the following number 425(lbs) round to the number of significant figures in parenthesis.

- a. (1)      b. (2)      c. (3)      d. (5) Use scientific notation

400 lbs      430 lbs      425 lbs      425.00 lbs

4. a. 10 grams \* 16 cats =

$160 \rightarrow 200$

b.  $2200 / 1.59 \text{ E } 0 =$

$1383.6 \rightarrow 1400$

5. a.  $250 + 5 =$

$$\begin{array}{r} 250 \\ + 5 \\ \hline 255 \end{array} \rightarrow 260.$$

b.  $200 - 50 =$

$$\begin{array}{r} 200 \\ - 50 \\ \hline 150 \end{array} \rightarrow 200$$