Rounding and Estimation

2nd GRADE

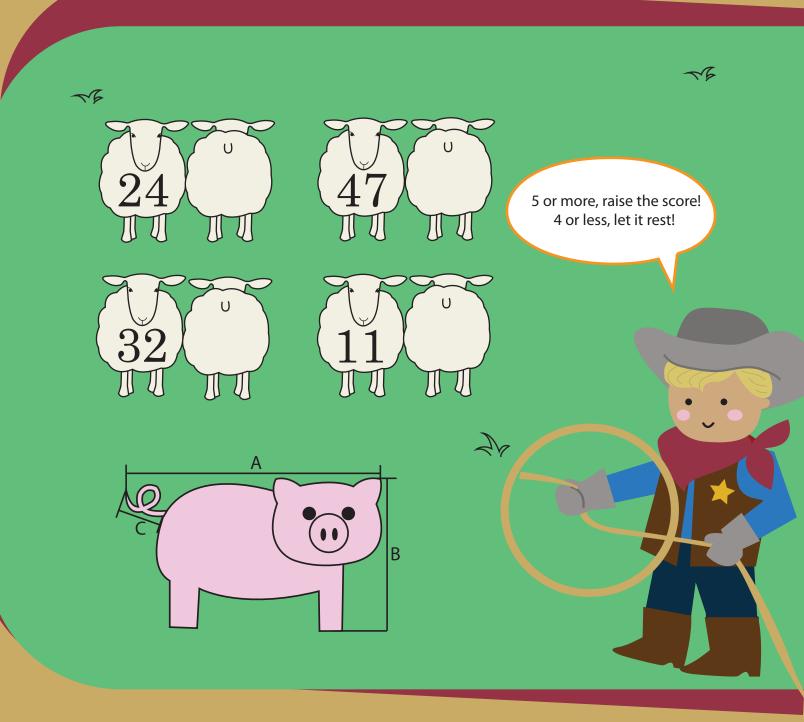




Table of Contents

Rounding and Estimation

Wild Round-Up #1 Round 'Em Up! Wild Round-Up #2 Measuring on the Farm Measuring Food Measuring Nature Measuring on the Road Measuring Sports Rounding and Subtracting #1 Rounding and Subtracting #2 Rounding and Subtracting #3 Estimate the Sum **Sweet Estimation** Magical Math Front-End Estimation Round and Add #1 Round and Add #2 Round and Add #3

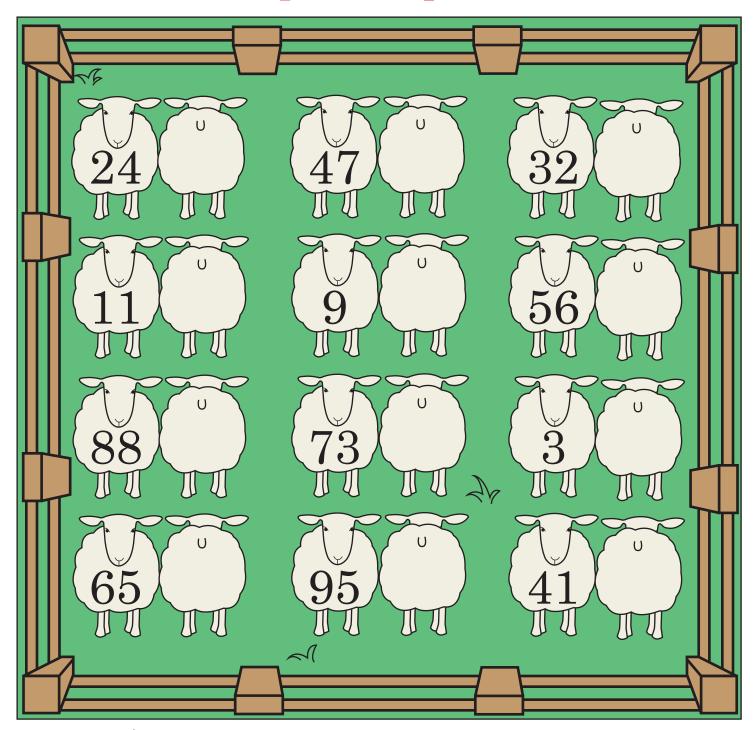
Certificate of Completion

Wild Round Up

Round the numbers to the nearest 10!

If the **ones** number is 5 or greater, round up to the nearest 10. If the **ones** number is 4 or less, round down to the nearest 10.

$$13 \rightarrow 10$$



Round 'Em Up!

Round the numbers to the nearest ten.

Rounding to the nearest ten

If the ones number is 5 or greater, round up to the nearest ten. Example: $17 \rightarrow 20$ If the ones number is 4 or less, round down to the nearest ten. Example: $12 \rightarrow 10$

56 __60__

31 _____

18 _____

43 _____

12 _____

27 _____

35 _____

67 _____

48 _____

61 _____

73 _____

86 _____

79 _____

84 _____

24 _____

52 _____

Rounding to the nearest hundred

If the **tens** number is **5** or greater, **round up** to the **nearest hundred**. Example: $1\underline{6}1 \rightarrow 200$ If the **tens** number is **4** or less, **round down** to the **nearest hundred**. Example: $1\underline{1}8 \rightarrow 100$

486 500

266 _____

521 _____

651 _____

824_____

148 _____

378 _____

234

333 _____

613 _____

883_____

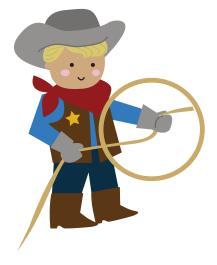
949

551 _____

195 _____

728 _____

762 _____



Here's a little rhyme to help you remember how to round numbers:

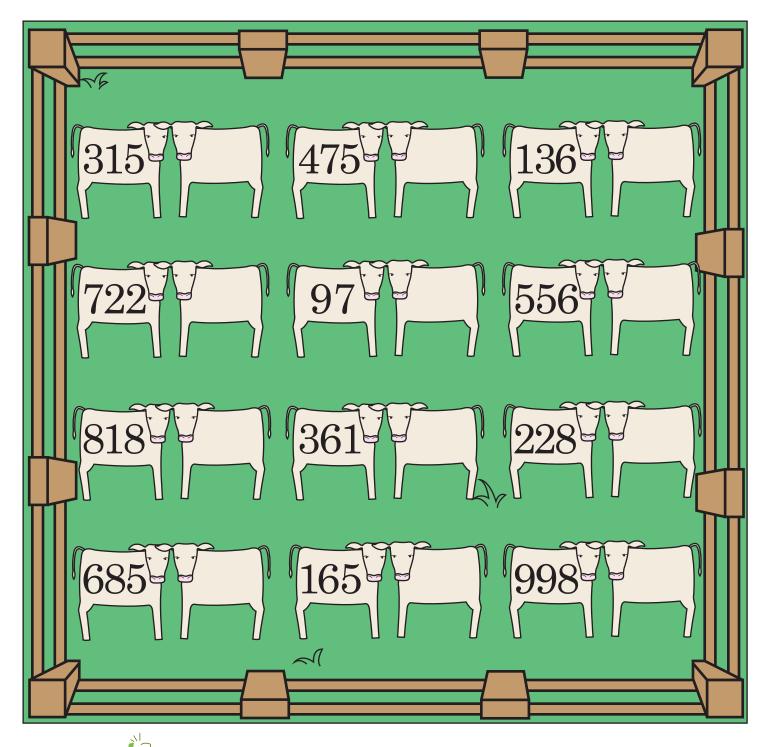
5 or more, raise the score 4 or less, let it rest



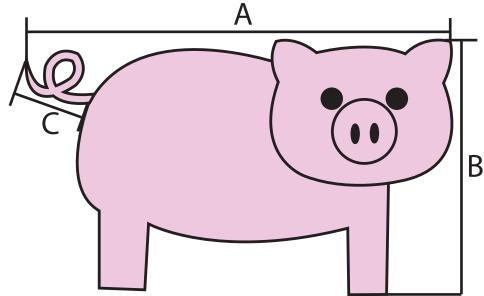
Round the numbers to the nearest 100.

If the **tens** number is 5 or greater, round up to the nearest 100. If the **tens** number is 4 or less, round down to the nearest 100.

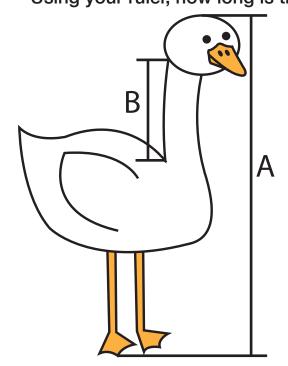
 $185 \rightarrow 200 \quad 136 \rightarrow 100$



MEASURING ON THE FARM!



| A: How long do you think the pig is? Inches: Centimeters: |
|---|
| Using your ruler, how long is the pig? Inches: Centimeters: |
| B: How tall do you think the pig is? Inches: Centimeters: |
| Using your ruler, how tall is the pig? Inches: Centimeters: |
| C: How long do you think the pig's tail is? Inches: Centimeters: |
| Using your ruler how long is the pig's tail? Inches: Centimeters: |

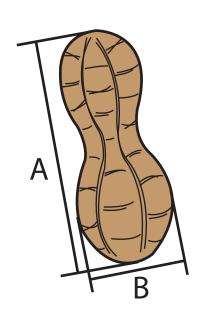


| A: How tall do you | think the duck is? |
|--------------------|--------------------------------|
| Inches: | Centimeters: |
| Using your rule | ; how tall is the duck? |
| Inches: | Centimeters: |
| B: How long do yo | ou think the duck's neck is? |
| Inches: | Centimeters: |
| Using your rule | ; how long is the duck's neck? |
| Inches: | Centimeters: |

MEASURING FOOD!

| R | A: How tall do y | you think the apple is? |
|---|-------------------------|------------------------------|
| | Inches: | Centimeters: |
| | Using your re | uler, how tall is the apple? |
| | Inches: | Centimeters: |
| | Δ B: How long do | you think the apple |
| | stem is? | |
| | Inches: | Centimeters: |
| | Using your r | ruler, how long is the |
| | apple stem? | ? |
| | Inches: | Centimeters: |
| C: How long do you think the apple seed | d is? <i>Inches:</i> | Centimeters: |
| Using your ruler how long is the apple | seed? Inches | Centimeters: |

| 4: | How long do yo | u think the peanut is? |
|----|------------------|---------------------------|
| | Inches: | Centimeters: |
| | Using your ruler | , how long is the peanut? |
| | Inches: | Centimeters: |
| В | : How wide do yo | ou think the peanut is? |
| | Inches: | Centimeters: |
| | Using your ruler | ; how wide is the peanut? |
| | Inches: | Centimeters: |
| | | |



MEASURING NATURE!

First guess how long you think the measurements are. Then use your ruler to measure to the nearest whole number.

| | B |
|---|---|
| | |
| Α | |
| | |
| | C |

| A: How tall do you | think the flower is? |
|--------------------|--------------------------------|
| Inches: | Centimeters: |
| Using your ruler, | how tall is the flower? |
| Inches: | Centimeters: |
| B: How wide do yo | u think the flower is? |
| Inches: | Centimeters: |
| Using your ruler, | how wide is the flower? |
| Inches: | Centimeters: |
| C: How long do you | u think the flower's leaf is? |
| Inches: | Centimeters: |
| Using your ruler, | how long is the flower's leaf? |
| Inches: | Centimeters: |

A: How tall do you think the tree is?

Inches: _____ Centimeters: ____
Using your ruler, how tall is the tree?

Inches: ____ Centimeters: ____

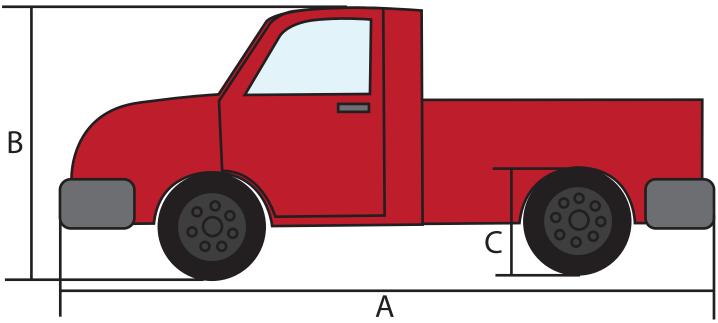
B: How long do you think the tree branch is?

Inches: ____ Centimeters: ____
Using your ruler, how long is the tree branch?

Inches: ____ Centimeters: ____



MEASURING ON THE ROAD!



| ı | | \wedge | ı |
|----------------|--|----------------------|-----------------|
| A: How long d | o you think the truck is? | nches: | Centimeters: |
| Using your r | ruler, how long is the truck? | Inches: | Centimeters: |
| B: How tall do | you think the truck is? In | ches: | Centimeters: |
| Using your r | ruler, how tall is the truck? | Inches: | Centimeters: |
| C: How tall do | you think the truck's tire is | ? Inches:_ | Centimeters: |
| Using your r | ruler, how tall is the truck's | tire? <i>Inche</i> s | s: Centimeters: |
| Using your r | is? Centimeters: uler, how long is the | В | |
| | Centimeters: | | |
| | you think the motorcycle is | ? | Α |
| Inches: | Centimeters: | | |
| Using your r | uler, how tall is the motorcy | cle? Inche | s: Centimeters: |

MEASURING SPORTS!

| A: How long do yo | u think the football is? |
|-------------------|--|
| Inches: | Centimeters: |
| Using your ruler | how long is the football? |
| Inches: | Centimeters: |
| B: How wide do yo | ou think the football is? |
| Inches: | Centimeters: |
| Using your ruler | how wide is the football? |
| Inches: | Centimeters: |
| C: How long do yo | u think the football laces are? |
| Inches: | Centimeters: |
| Using your ruler | how long are the football laces? |
| Inches: | Centimeters: |
| | B |
| | A |
| Α | How long do you think the baseball bat is? |
| | Inches: Centimeters: |
| | Using your ruler, how long is the baseball bat? |
| | Inches: Centimeters: |
| В | How long do you think the baseball bat grip is? |
| | Inches: Centimeters: |
| | |
| | Using your ruler, how long is the baseball bat grip? |





Rounding and Subtracting

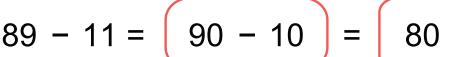
Estimating numbers makes you speedy! Round the numbers before subtracting. Remember, when rounding to the nearest ten:

If the number in the ones place is 5 or greater, round up to the nearest ten. If the number in the ones place is 4 or less, round down to the nearest ten. Example: $18 \Rightarrow 20$

14 **→** 10

Example









Rounding and Subtracting

Estimating numbers makes you speedy! Round the numbers before subtracting. Remember, when rounding to the nearest ten:



If the number in the ones place is 5 or greater, round up to the nearest ten. If the number in the ones place is 4 or less, round down to the nearest ten.

Example: 18 → 20

14 **→** *10*

Example







Rounding and Subtracting

Estimating numbers makes you speedy! Round the numbers before subtracting. Remember, when rounding to the nearest ten:

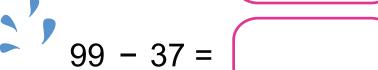
If the number in the ones place is 5 or greater, round up to the nearest ten. If the number in the ones place is 4 or less, round down to the nearest ten.

Example: 18 → 20

14 **→** *10*

Example

78 - 15 =
$$\left(80 - 20\right) = \left(60\right)$$



Estimate the sums by rounding the numbers to the nearest hundred first and then adding them together. Don't forget to show your work!

Estimate the sum

$$\begin{array}{ccc} 210 & \rightarrow & 200 \\ +378 & \rightarrow & +400 \\ \hline & 600 \end{array}$$

Sweet Estimation



Estimate the sum by rounding each number to the nearest hundred. Show your work!



Magical Math

Estimate the difference by rounding each number to the **nearest hundred**. Show your work!

$$\begin{array}{c|c}
608 \longrightarrow & 600 \\
-372 \longrightarrow & -400 \\
\hline
200
\end{array}$$

Front-End Estimation

Front-end estimation only uses the numbers in the very left column. If you are working with a 2 digit number, you will round to the nearest tens place, and if you are working with a 3 digit number, you will round to the nearest hundreds place.

Examples:

$$\frac{42}{+17} \rightarrow \frac{40}{60}$$

$$\frac{263}{-119} \rightarrow \frac{300}{-100}$$

$$\frac{75}{\cancel{+}12} \rightarrow_{\cancel{+}}$$

$$\frac{96}{\cancel{+35}} \rightarrow_{+}$$

$$+56$$
 \rightarrow $+$ $-$

$$+23$$
 \rightarrow $+$

$$\frac{63}{-37} \rightarrow \underline{}$$

$$\frac{93}{-85} \rightarrow \underline{}$$

$$\frac{27}{-16} \rightarrow \underline{\hspace{1cm}}$$

$$\begin{vmatrix} 231 \\ +447 \\ - + \end{vmatrix}$$

$$\underbrace{^{612}_{^{+289}}}_{^{+}}\rightarrow_{^{+}}$$

$$\underbrace{^{876}_{+126}}_{+}\rightarrow_{+}$$

$$\begin{array}{c} 792 \\ -134 \end{array} \rightarrow \underline{}$$

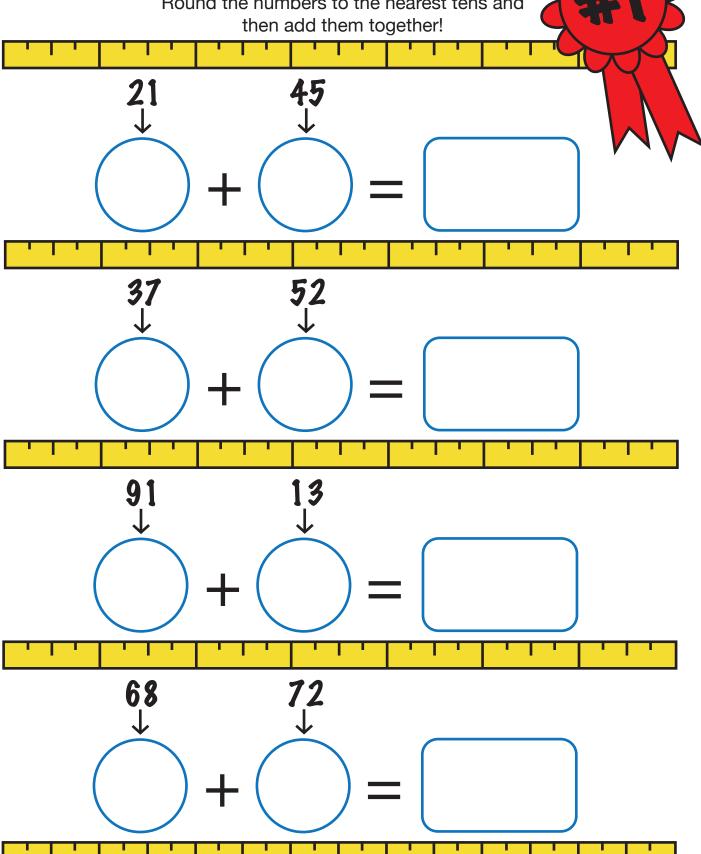
$$\frac{949}{-381} \rightarrow \underline{}$$

$$\frac{417}{-199} \rightarrow \underline{}$$

$$\begin{array}{c}
650 \\
-511
\end{array}$$

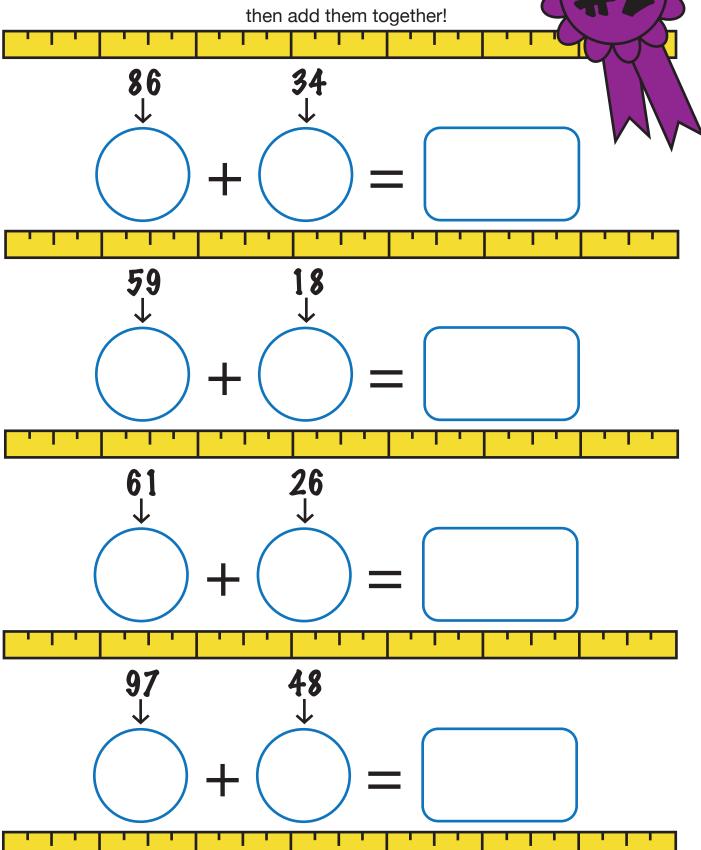
Round and Add!

Round the numbers to the nearest tens and



Round and Add!

Round the numbers to the nearest tens and



Round and Add!

Round the numbers to the nearest hundreds and then add them together!

