

Warm Up Gr 7



1) Round the following to the Hundredths place.

a) 147.368

b) 200.477

$\underline{147.368}$
147.37

$\underline{200.477}$
200.48

2) Round the following to the nearest whole number.

(ones place)

a) 15.48

b) 22.71

c) 49.66

$\underline{15.48}$
15

$\underline{22.71}$
23

$\underline{49.66}$
50

3) Use front-end estimation of the following:

(cut off decimal part)

a) $147.237 + 2.66 + 4.901$

$\approx 147 + 2 + 4$

$\approx 149 + 4$

≈ 153

4) Find the sum of 197.6 and 22.34

→ when you add you line up •

↓
Answer
to
add

$$\begin{array}{r} 197.60 \\ + 22.34 \\ \hline 219.94 \end{array}$$

Thousands hundred tens ones • tenths hundredths thousandths

1. Use front-end estimation to estimate each sum or difference.

a) $2.876 - 0.975$

b) $71.382 + 6.357$

c) $125.12 + 37.84$

d) $9.7 - 1.36$

Round
a) $\approx 3 - 1$
2

Front
End
 $2 - 0$
2

b) $\approx 71 + 6$
77

Front End
 $71 + 6$
77

c) $\approx 125 + 38$
163

$\approx 125 + 35$
160

d) $\approx 9.7 - 1.4$
8.3

$\approx 10 - 1$
9

← better
 $\approx 9.5 - 1.5$
8

2. The tallest building in the world is the Taipei 101 in Taiwan. Its height is 0.509 km. The tallest building in North America is the Sears Tower in Chicago, USA. Its height is 0.442 km. What is the difference in the heights of the buildings?

$$\begin{array}{r} 0.509 \\ - 0.442 \\ \hline 0.067 \text{ km} \end{array}$$



Shrek 2 was the highest-earning movie of 2004.

Date	Earnings (US\$ Millions)
Wed. May 19	11.786
Thurs. May 20	9.159
Fri. May 21	28.340
Sat. May 22	44.797
Sun. May 23	34.901
Mon. May 24	11.512
Tues. May 25	8.023

→ Estimate the earning for the first 2 days: (Use rounding rules)
 one place

$$11.786 + 9.159 \\ \approx 12 + 9 \\ 21$$

First 2 day estimate is \$21 Million

Actual Earnings for first 2 days:

$$\begin{array}{r} 11.786 \\ + 9.159 \\ \hline 20.945 \end{array}$$

Actual 1st two day earnings is \$20.945 million

Saturday and Sunday Estimate (Round)

$$\begin{array}{r} 45 \\ + 35 \\ \hline 80 \end{array}$$

Actual

$$\begin{array}{r} \text{Sat } 44.797 \\ \text{Sun } 34.901 \\ \hline 79.698 \end{array}$$

All seven day Estimate

$$\begin{array}{r} 3 \\ 12 \\ 9 \\ 28 \\ 45 \\ 35 \\ + 12 \\ \hline 141 \end{array}$$

Actual

$$\begin{array}{r} 11.786 \\ 9.159 \\ 28.340 \\ 44.797 \\ 34.901 \\ 11.512 \\ + 8.023 \\ \hline 148.518 \end{array}$$

Estimate for 7 days is \$141 million

Actual for 7 days is \$148.518 million

Discuss pages 96,97 with the students

Explore

- First 2 days
Estimate

$$\begin{aligned} &\approx 11.8 + 9 \\ &\quad 20.8 \\ \\ &\approx 12 + 9 \\ &\quad 21 \end{aligned}$$

Actual

$$\begin{array}{r} 11.786 \\ + 9.159 \\ \hline 20.945 \end{array}$$

Saturday and Sunday
Estimate

$$\begin{aligned} &\approx 45 + 35 \\ &\quad 80 \end{aligned}$$

Actual

$$\begin{array}{r} 44.797 \\ + 34.901 \\ \hline 79.698 \end{array}$$

All seven day
Estimate

$$\begin{aligned} &\approx \underline{12} + 9 + 28 + \underline{45} + \underline{35} + \underline{12} + \underline{8} \\ &\quad 149 \end{aligned}$$

Actual

$$\begin{array}{r} 3 \quad 3 \quad 3 \quad 2 \\ 11.786 \\ 9.159 \\ 28.340 \\ 44.797 \\ 34.901 \\ 11.512 \\ 8.023 \\ \hline 148.518 \end{array}$$

Estimate the difference ^{Subtract} $\rightarrow$ line up •

$$\underline{12.12} - 8.56$$

Estimate

Round

$$\begin{array}{r} 12 \\ - 9 \\ \hline \approx 3 \end{array}$$

Front End

$$12 - 8$$

4

Actual

$$\begin{array}{r} \cancel{9} \cancel{1} \cancel{2} . \cancel{1} \cancel{2} \\ - 8.56 \\ \hline 3.56 \end{array}$$



Remember Key words

1)
Pam had \$92.47 in her bank account. She withdrew \$26.53 and later deposited \$15.25. How much money does Pam have now?

take away

add in

Pam now has \$81.19 in her account.

Step 1

$$\begin{array}{r} 92.47 \\ - 26.53 \\ \hline 65.94 \end{array}$$

Step 2

$$\begin{array}{r} 65.94 \\ + 15.25 \\ \hline \$ 81.19 \end{array}$$

2) Evaluate $37.4 + 16 - 2.5$

Show work in steps

$$\begin{array}{r} 37.4 + 16 = 53.4 \\ 53.4 - 2.5 = 50.9 \end{array}$$

Step 1

$$\begin{array}{r} 37.4 \\ + 16.0 \\ \hline 53.4 \end{array}$$

Step 2

$$\begin{array}{r} 53.4 \\ - 2.5 \\ \hline 50.9 \end{array}$$

Class/Homework

pg. 98- 99 # 2, 3, 4, 5, 6,

Gr 7 Add Sub WS d2 If needed

Only estimate when asked to estimate. (If not then just add or subtract normally, showing work)

Decimals

Sub: 51

Name : _____

Score : _____

- 1) Angie spent \$131.56 on groceries during the week preceding Christmas. During the Christmas week, her grocery expenses reduced to \$56.91 as she was out of town for a few days. How much more money did Angie spend on groceries during the week before Christmas than the following week?



- 2) Sharon takes her 2 kids, Ken and Ben to the doctor's office to fill the health form given at school. Ken is 4.01 feet tall and Ben is 3.71 feet tall. How much taller is Ken than Ben?



- 3) Lily takes up a new year resolution to lose weight. She weighed 164.76 pounds on January 1st, 2017. Lily goes on a low-carb diet and works out in the gym. On January 31st, 2017, she weighs 159.34 pounds. How many pounds did Lily lose in a month?



- 4) The tallest tree among the redwoods situated in California measures 379.7 feet. The tallest tree among the mountain-ash species in Australia stands at 326.77 feet. What is the difference in height between the two trees?



- 5) Jake lives in Philadelphia and plans to attend his high school reunion in Connecticut, which is 190.8 miles away. He drives 105.7 miles and reaches New York City. How many more miles does Jake have to drive, to attend his high school reunion in Connecticut?



1. Use front-end estimation to estimate each sum or difference.

a) $2.876 - 0.975$

b) $71.382 + 6.357$

c) $125.12 + 37.84$

d) $9.7 - 1.36$

a) $\approx \underset{2}{3} - 1$

b) $\approx \underset{77}{71} + 6$

c) $\approx \underset{163}{125} + 38$

$\approx \underset{160}{125} + 35$

d) $\approx \underset{8.3}{9.7} - 1.4$

$\approx \underset{9}{10} - 1$

← better
 $\approx \underset{8}{9.5} - 1.5$

2. The tallest building in the world is the Taipei 101 in Taiwan. Its height is 0.509 km. The tallest building in North America is the Sears Tower in Chicago, USA. Its height is 0.442 km. What is the difference in the heights of the buildings?

$$\begin{array}{r} 0. \overset{4}{\cancel{5}} \overset{1}{\cancel{0}} 9 \\ - 0. 442 \\ \hline 0.067 \text{ km} \end{array}$$

3. Four classes of students from Mackenzie School are planning

a field trip. The total cost of the trip is \$1067.50.

To date, the classes have raised: \$192.18, \$212.05, \$231.24, \$183.77

a) How much money have the classes raised so far?

b) How much more money do the classes need to raise in total?

Show your work.

$$\approx 190 + 210 + 230 + 180 = 810$$

$$\begin{array}{r} \text{a) } \overset{2}{192}.\overset{1}{18} \\ 212.05 \\ 231.24 \\ 183.77 \\ \hline \$819.24 \end{array}$$

$$\begin{array}{r} \text{b) } \overset{5}{1067}.\overset{4}{50} \\ - 819.24 \\ \hline \$248.26 \end{array}$$

4. **Assessment Focus** A baker wants to make 3 different kinds of chocolate chip cookies. The recipes call for 2.75 kg, 4.4 kg, and 5.55 kg of chocolate chips. The baker has 10.5 kg of chocolate chips.

a) How many kilograms of chocolate chips does the baker need?

Estimate to check your answer is reasonable.

b) Does the baker have enough chocolate chips to make the cookies?

How do you know?

c) The baker wants to follow the recipes exactly.

If your answer to part b is no, how many more kilograms of chocolate chips are needed? If your answer to part b is yes, how many kilograms of chocolate chips will the baker have left over?

$$\begin{array}{r} \text{a) } \overset{1}{2}.\overset{1}{75} \\ 4.40 \\ + 5.55 \\ \hline 12.70 \end{array}$$

$$\approx 3 + 4 + 5.5 = 12.5$$

b) No, he does not have enough

$$\begin{array}{r} \text{c) } 12.70 \\ - 10.50 \\ \hline 2.20 \end{array}$$

He needs another 2.2 kg

5. Estimate, then calculate, the sum below.

Explain how you estimated.

$$46.71 + 3.9 + 0.875$$

$$\approx 46 + 4 + 1$$

51

I knew $46 + 4 = 50$
which is an easy
number to work with

$$\begin{array}{r} 46.710 \\ + 3.900 \\ + 0.875 \\ \hline 51.485 \end{array}$$

6. The Robb family and the Chan family have similar homes.

The Robb family sets its thermostat to 20°C during the winter months.

Its monthly heating bills were: \$171.23, \$134.35, and \$123.21

The Chan family used a programmable thermostat to lower the temperature at night, and during the day when the family was out.

The Chan family's monthly heating bills were: \$134.25, \$103.27, and \$98.66

a) How much money did each family pay to heat its home during the winter months?

b) How much more money did the Robb family pay?

Estimate to check your answer is reasonable.

c) What other things could a family do to reduce its heating costs?

$$\begin{array}{r} \text{Robb Family} \\ 171.23 \\ 134.35 \\ 123.21 \\ \hline 428.79 \end{array}$$

$$\begin{array}{r} \text{Chan Family} \\ 134.25 \\ 103.27 \\ 98.66 \\ \hline 336.18 \end{array}$$

$$\begin{array}{r} b) \quad 428.79 \\ - 336.18 \\ \hline 92.61 \end{array}$$

$$\approx 430 - 335$$

95