

Warm up Grade 6

Date: Sept 18

Quiz Time

After the quiz work on the question from yesterday

Blackville's Most Talented

handed out yesterday

Homework Solutions

No homework

Ch.2 (Lesson 2 Numbers all around)

Specific Outcomes

- Demonstrate an understanding of place value for numbers greater than one million. (6N1)
- Solve problems involving large numbers, using technology. (6N2)
- Demonstrate an understanding of factors and multiples by:
 - determining multiples and factors of numbers less than 100
 - identifying prime and composite numbers
 - solving problems involving multiples. (6N3)
- Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers). (6N9)

● Today

Another (BUT a Two-step Problem)


Below is the advertisement for a local concert.

Blackville's Most Talented

Location: Blackville Park Stage

Time: 7:00 pm to 10:00 pm

Cost: \$12 per adult
\$ 8 per student



a) If 162 adult tickets are sold and 286 student tickets are sold, then how much money did the show make? Explain how you know your answer is reasonable (This just means show your work and label as you go)

(YOU MUST SHOW YOUR WORK....but you can use a calculator)

STEP 1:

Estimate: Adults
 estimate $\$10 \times 162 = \1620

Students ← estimate
 $\$8 \times 300 \text{ tickets} = \2400

Total = $\begin{array}{r} 1620 \\ + 2400 \\ \hline \$4020 \end{array}$

STEP 2:

Actual:

Adults
 $\$12 \times 162 \text{ tickets} = \1944

Students
 $\$8 \times 286 \text{ tickets} = \2288

STEP 3:

Answer

$$\begin{array}{r} 1944 \\ + 2288 \\ \hline \$4232 \end{array}$$

The show made \$4232

Connect

The population of Canada was about 32 980 000 in July 2007.
 Data show that there were about 497 cellular phones per 1000 people in that year.
 How many cellular phones were there in Canada in 2007?

- First, find how many groups of 1000 there are in 32 980 000.
 To find how many equal groups, divide: $32\,980\,000 \div 1000 = 32\,980$

This is a 2-step problem.



- There are about 497 cellular phones for one group of 1000.
 To find how many cellular phones for 32 980 groups of 1000, multiply:
 $32\,980 \times 497 = 16\,391\,060$

The numbers in this problem are large, so I use a calculator.



There were about 16 391 060 cellular phones in Canada in 2007.

Estimate to check the answer is reasonable.

- Use benchmarks:
- 32 980 000 is closer to 30 000 000 than to 40 000 000.
 $30\,000\,000 \div 1000 = 30\,000$
 - 497 is closer to 500 than to 400.
 $30\,000 \times 500 = 15\,000\,000$

16 391 060 is close to 15 000 000.

So, 16 391 060 is a reasonable answer.

Class/Homework

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#1, 2ab, 3, 4, 5, 6 Show work
write a final sentence

only estimate and the actual BOTH for #1

then find the actual for the rest

Key words

what is total \Rightarrow add

How much more \Rightarrow subtract (Big-Small)

for each / every \Rightarrow \times

How many times larger or smaller \Rightarrow \div Big
Small



Practice

Use a calculator when you need to.

1. The ticket agent sold 357 adult tickets and 662 student tickets for a concert. How much money did the ticket agent take in? Explain how you know your answer is reasonable.



2. The table shows the populations of the western provinces and territories in 2006.
- a) Find the total population of the 4 western provinces.
 - b) How many more people live in Saskatchewan than in Nunavut?
 - c) Make up your own problem about these data. Solve it.

Provinces and Territories	Population
British Columbia	4 113 487
Alberta	3 290 350
Saskatchewan	968 157
Manitoba	1 148 401
Yukon Territory	30 372
Northwest Territories	41 464
Nunavut	29 474

3. The total population of Canada was 30 007 094 in 2001 and 31 612 897 in 2006. By how much did the population increase from 2001 to 2006?

4. Monarch butterflies migrate from Canada to Mexico every fall. It is estimated that the butterfly travels about 82 km each day. Suppose the butterfly travels from Edmonton to El Rosario. This is a distance of about 3936 km. How many days does it take? How did you decide which operation to use?



5. The Fairview High School community of 1854 students and 58 teachers attended a special performance of a play at a local theatre.
- The theatre has 49 rows, with 48 seats in each row.
- Were any seats empty? How do you know?
 - If your answer to part a is yes, find the number of empty seats.

6. This table shows the number of participants at the 2002 and 2006 North American Indigenous Games.

Year	Athletes	Coaches, Managers, and Chaperones
2002 (Winnipeg)	6136	1233
2006 (Denver)	7415	1360

- a) What was the total number of participants in 2002?
 - b) How many more athletes participated in 2006 than in 2002?
 - c) About how many times as many athletes participated in 2002 as coaches, managers, and chaperones?
- How did you decide which operation to use each time?



Opening Ceremonies, 2002 North American Indigenous Games, Winnipeg

7. The food bank received 325 cases of 24 cans of soup, and 227 cases of 48 cans of soup. Estimate first. Then find how many cases of 12 cans of soup can be made.



8. Ms. Talby's hens laid 257 dozen eggs last month.
 - a) About how many eggs is that?
Explain your estimation strategy.
 - b) Exactly how many eggs is that?
How do you know your answer is reasonable?



9. The owner of a building renovated 18 apartments. Painting cost \$5580 and new lights cost \$3186.
- Which operation or operations will you use to find the cost for each apartment? Explain.
 - Estimate this cost. Explain the strategy you used.
 - Find the exact cost.

10. A newspaper prints 8762 papers, each with 16 pages.
A roll of newsprint can be used to print 6150 pages.
About how many rolls of newsprint are required?
Show your work.
How do you know your answer is reasonable?

11. The world's longest novel, *À la recherche du temps perdu* by Marcel Proust of France, contains about 9 609 000 letters.
- a) Suppose each page contains about 2400 letters.
About how many pages does the novel contain?
 - b) Suppose it took Jacques 85 days to read the novel.
He read the same number of pages per day.
About how many pages did Jacques read each day?
How do you know your answers are reasonable?



Attachments

Integer questions for practice Solutions.notebook