



Warm up Grade 6

Date: Sept. 23



BHS has a population of 461
NSER has a population of 435
MVHS has a population of 934
JMH has a population of 789



How many students does BHS and JM# and MVHS have altogether?

We have 2184 students in BHS, JM# and MVHS.

Explain why your answer is reasonable

This is reasonable because 2184 is close to 2200.

Actual	461	}	Est	500
	789		800	
	+ 934		+ 900	
	<hr/> 2184		<hr/> 2200	

1) Estimate

Adult \rightarrow $30 \times 350 \approx 10500$

Student \rightarrow $25 \times 700 \approx 17500$

$$\begin{array}{r} \text{Total} \\ 10500 \\ + 17500 \\ \hline \$ 28000 \end{array}$$

1) Actual

Adult \rightarrow \$28

Student \rightarrow \$24

$$\begin{array}{r} 357 \text{ Adults} \\ \times 28 \\ \hline 2856 \\ + 7140 \\ \hline 9996 \end{array}$$

Total Adult Sales = \$9996

$$\begin{array}{r} 662 \text{ Kids} \\ \times 24 \\ \hline 2648 \\ + 13240 \\ \hline 15888 \end{array}$$

Total student sales = \$15888

Total Money = Adult + Student

$$= \$9996 + 15888$$

$$= 25884$$

$$\begin{array}{r} 15888 \\ + 9996 \\ \hline 25884 \end{array}$$

The ticket agent took in \$25 884.

2) 4 Western Provinces

Bc, Al, Sask, Man

$$\begin{array}{r} 4 \ 113 \ 487 \\ 3 \ 290 \ 350 \\ 968 \ 157 \\ + 1 \ 148 \ 401 \\ \hline 9 \ 520 \ 395 \end{array}$$

Can use a calculator

The total of the 4 western populations is 9 520 395 people.

2b) Sask - Nun

$$\begin{array}{r} 968 \ 757 \\ - 29 \ 474 \\ \hline 938 \ 683 \end{array}$$

Saskatchewan has 938 683 more people than Nunavut

3)
$$\begin{array}{r} 31612897 \\ - 30007094 \\ \hline 1605803 \end{array}$$

The population increased by 1 605 803 from 2001 to 2006

4) 82 km per day

Total distance \Rightarrow 3936 km

$$3936 \div 28 \text{ km} = 140.57$$

\approx 141 days for Butterfly

Ch.2 (Lesson 2 Numbers all around)

Continued

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

Remember

When given a word problem you must do the following:

- *figure out the operation
- * Estimate
- *Do out the actual
- * Then write an answer in sentence form



Example:

Last years BHS grads collected Halloween candy for their annual party at the school. They received 26 bags of Jolly Ranchers that held 35 pieces and 42 bags of bubble gum, that each held 21 bubble gum. They must re-bag the candy so that each treat bag has 8 pieces of candy. How many bags did the grad class make with this?

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

STEP 1: $JR \rightarrow 30 \times 40 = 1200$ or $30 \times 30 = 900$

Estimate: $Bub \rightarrow 40 \times 20 = + 800$
 $\frac{2000}{2000}$ (\approx total)
 $2000 \div 10 \approx 200 \rightarrow 200$ bags

STEP 2: $JR \rightarrow 26 \times 35 = 910$ pieces

Actual: $Bub \rightarrow 42 \times 21 = + 882$ pieces
 $\frac{1792}{1792}$ (= total)
 $1792 \div 8 = 224$ bags

STEP 3:

Answer

The grad class made 224 bags.

Class/Homework

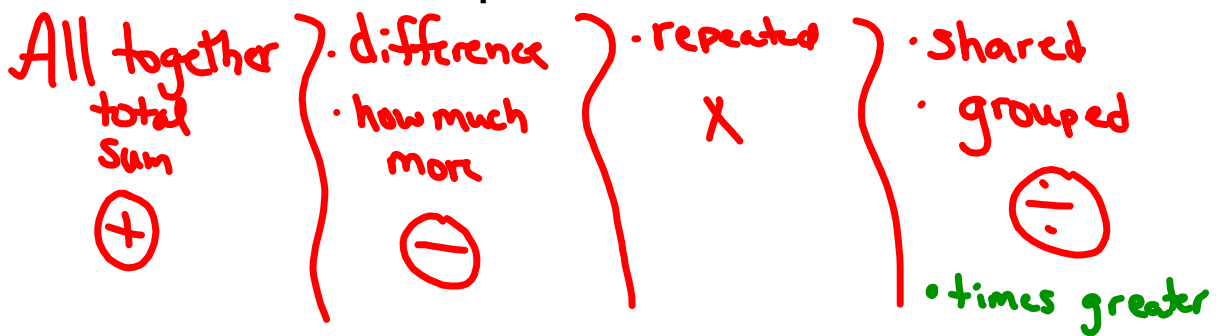
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Show work (Actual)

Use calculators but show work

Quiz on word problems Tomorrow





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?

Subtract

$$\begin{array}{r} 31\ 612\ 897 \\ - 30\ 007\ 094 \\ \hline 1\ 605\ 803 \end{array}$$

The population increased by 1 605 803.

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?



Total distance 3936 km

82 km / day

$$3936 \div 82 = 48$$

It took 48 days.

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.

- a) Were any seats empty? How do you know?
b) If your answer to part a is yes, find the number of empty seats.

$$\begin{aligned} \text{Seats} &= 49 \times 48 \\ &= 2352 \end{aligned}$$

Seats will be empty

$$\begin{array}{r} \text{b)} \quad 2352 \\ - 1912 \\ \hline 440 \end{array} \text{ empty}$$

$$\begin{aligned} \text{Total People} &= \text{Students} + \text{Teachers} \\ &= 1854 + 58 \\ &= 1912 \end{aligned}$$

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



Opening Ceremonies, 2002 North American Indigenous Games, Winnipeg

- 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 2006 as coaches, managers, and chaperones?

How did you decide which operation to use each time?

a) 2002 (Year)

$$\begin{array}{r} 6136 \\ + 1233 \\ \hline 7369 \end{array}$$

Total # of participants in 2002 was 7369.

$$6136 \div 1233$$

=

b)

$$\begin{array}{r} 7415 \\ - 6136 \\ \hline 1279 \end{array}$$

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?



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