Lesson 1 - Rounding

HOW TO ROUND:

1) Find the number in the place value you are asked to round (like the ones, tens, or hundredths place)
2) Look at the number to the right of it
3) NOW use the rule to round

RULE :

5 or more - RAISE the Score

If it's 4 or less- LET it Rest

What happens to the numbers after you ROUNDED one of them?

The numbers behind it now become → zero

Examples*: Round the number in bold to:*

- The nearest tens 1 2 **6** 5 1270
- The nearest hundreds **9** 5 7 1000 **7** 2 3 700 1 0 **6** 7 4 10700
- Nearest thousandths 0.3 4 **7** 2 0.347 1 . 1 1 **2** 2 3 1.112 2 2 . 9 9 **9** 9 23
- The nearest tenths 0.**3** 4 0.3 1 . **1** 1 2 2 1.1 2 2 . **9** 5 1 23

Complete WB P 8 (question 9), P 9 (all), P 13 (all)
You can then work on the challenge questions on the board.

ACTIVITY 2 Rounding

The circus "Under the Sun" is in town. At their previous performance, 12 850 people attended the show. The gross income was $199 250 and the net profit for this performance was $25 590.

a) To the nearest thousand, what was the number of spectators at this performance?

_____

b) To the nearest one thousand dollars, what was the gross income for the show? _____

c) Round the net profit for the evening to the nearest thousand. _____

ROUNDING A NUMBER

- To **round** a number to the nearest hundred, look at the digit immediately to the right of the hundred's digit.
  - if it is greater than or equal to 5, increase the hundred's digit by 1.
  - if it is less than 5, do not change the hundred's digit.

  Then change all digits to the right of the hundred's digit to zero.

  Ex.: 3 4⑥8 is rounded to 3500 to the nearest hundred since $6 \geqslant 5$

  3 4④8 is rounded to 3400 to the nearest hundred since $4 < 5$.
- This procedure can be generalized by the example below:

  Ex.: 783 567 is rounded to:
  - 783 600 to the nearest hundred.
  - 784 000 to the nearest thousand.
  - 780 000 to the nearest ten thousand.

9. In each of the following situations, state if the number given is an exact or a rounded value.

a) At a hockey game, there were 12 384 spectators. exact

b) In 1990, Mexico city had 26 300 000 inhabitants. rounded

c) Mount McKinley is the highest mountain of the United States, measuring 6 194 m. exact

d) 1 km^2 corresponds to 1 000 000 m^2. exact

10. To what precision should you round:

a) the price of your CD player? _____

b) the number of CD's on your shelves? _____

c) the price of a car? _____

d) the number of spectators at a rock concert? _____

11. Round each of the following numbers to the indicated precision.

Number	To the nearest ten	To the nearest hundred	To the nearest thousand
4 538			
12 753			
64 537			
135 999			

12. Which numbers, when rounded to the nearest ten, give the following numbers:

a) 70 65, 66, 67, 68, 69, 70, 71, 72, 73, 74

b) 150 _____

13. Five travelling companions wish to climb Mount Saint-Elias located in Canada. The height of this mountain is 5 489 metres. Round this height to the nearest thousand.

_____

14. In a city, the land taxes are established based on the property evaluations, rounded to the nearest thousand, as indicated in the table below.

Evaluation	$75 000 to $79 999	$80 000 to $84 999	$85 000 to $89 999	$90 000 to $94 999	$95 000 to $99 999	$100 000 to $105 000
Payable taxes	$950	$1 025	$1 100	$1 185	$1 275	$1 400

What is the amount of taxes that the owners of a house in this city must pay, given that their house is evaluated at:

a) $74 800 _____ **b)** $84 890 _____ **c)** $85 250 _____

d) $94 355 _____ **e)** $94 840 _____ **f)** $99 999 _____

15. The table below gives the height (in metres) of 5 mountain peaks on the Mont-Blanc mountain located in the French Alps. Round the height of each of these mountain peaks to the indicated precision.

Mountain Peak	Height	To the nearest ten	To the nearest hundred
Aiguille de la persévérance	2899 m		
Aiguille de l'index	2595 m		
Aiguille du Pouce	2873 m		
Aiguilles Crochues	2840 m		
Chapelle de Glière	2663 m		

14. Nathalie purchases a dress for $48, a blouse for $23 and a necklace for $16. Estimate the total sum Nathalie paid for these purchases.

_____

15. A representative of a pharmaceutical company travelled for three days in order to sell the company's products. The first day, he travelled 238 km, the second day, 479 km, and the third day, 356 km. Estimate the total number of kilometres he covered during these three days.

_____

16. A company employee earns a monthly salary of $2 567. He spends $875 for rent, $430 for food, $270 for recreation and the rest on miscellaneous expenses.

a) Estimate the amount of money he spends on his miscellaneous expenses. _____

b) Determine the exact amount of his miscellaneous expenses. _____

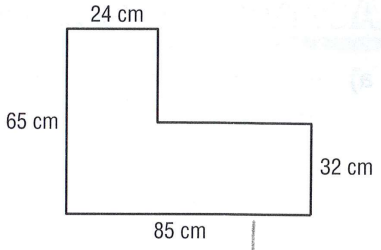
17. To celebrate their wedding anniversary, Cedric and Ashley bought themselves a television for $679, a DVD player for $325 and a stereo for $259. (All prices include taxes.)

a) Estimate the total amount of their purchases. _____

b) Determine the exact amount of their purchases. _____

18. Calculate the perimeter of the adjacent figure.

_____



19. Samantha has saved $128. She buys a camera for $56 and a purse worth $39 less than the camera. How much money does she have left? (Taxes are included in the prices.)

_____

20. Claire's mother is 7 years younger that Claire's father. Together, the sum of her parents' ages is 69. How old are Claire's parents?

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