

**MODULE 2**

**Adding Real Life Numbers**

The manufacturer’s suggested retail price (MSRP) of an economy car is $22,690. An additional $2,574 is added to the retail price for the freight, pre-delivery inspection (PDI) and levies. What is the total price of the car?



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**Module 2: Adding Real Life Numbers**

In this module, you will be learning several skills for success. Skills for success are skills needed in everyday life to be successful at work, when learning and for life.

*(Retrieved from: https://www.canada.ca/en/services/jobs/training/initiatives/skills-success.html)*

In this module you will practice the following skills for success:

a) **Numeracy:** Numeracy skills are critical to your success in today’s society. Numeracy skills are necessary at work, in everyday life and in learning environments. You require these skills to understand numbers, perform calculations, manage budgets, interpret data and make estimations.

b) **Problem Solving:** Problem solving skills help you to make decisions, solve problems and make changes. Improving your problem solving skills will help you make better decisions by teaching you to identify a problem, gather the correct information and solve the problem.

c) **Reading:** Reading is important at work and in daily life activities to keep you informed, safe and successful. Reading is also important in order to learn new skills. This module will help you practice locating information through words, symbols and pictures.

d) **Writing:** The ability to communicate with other people to share information using words, symbols or images is important for success at work, in a learning environment and everyday life. Improving your writing skills will ensure you are communicating clearly and effectively in various situations.

# PART 1

# Addition Facts

Mr. Jones shops at the grocery store. He buys 7 cans of soup and 5 cans of chili. How many cans does he buy in all?

You can add to find out how many cans in all. 7 + 5 = 12

An addition fact can be written in two ways. Number sentence 7 + 5 = 12 7 ← addend

+ 5 ← addend

12 ← sum

It is read seven plus five equals twelve. Mr. Jones bought 12 cans in all.

*Example:* Add 6 + 5. Then add 5 + 6

6 5

+5 +6

You can add numbers in any order. The sum is always the same.

11 11

*Example:* Add 5 + 0.

5 + 0 = 5

The sum of zero and any number is that number.

Other examples: 0 + 7 = 7 0 + 0 = 0 1 + 0 = 1

*Example:* Add 4 + 2 + 7

|  |  |  |  |
| --- | --- | --- | --- |
| 4 |  | 4 |  |
| 2 | 6 | 2 | 4 |
| +7 | +7 | +7 | +9 |
|  | 13 |  | 13 |

You can change the grouping of the addends. The sum is always the same.

Parentheses can be used to make addition easier. They show which numbers to add first.

(4 + 2) + 7 4 + (2 + 7)

6 + 7 = 13 4 + 9 = 13

## Part 1: Addition Facts Practice Your Skills

**Exercise 1A**

**Write down the numbers that are the addends. Circle the number that is the sum.**

1. 7 + 3 = 10 2. 0 + 2 = 2

3. 6 + 6 = 12 4. 3 + 4 = 7

## Exercise 1B

**Write the number sentence.**

1. six plus three equals nine
2. nine plus one equals ten
3. four plus five is nine
4. two plus zero is two

## Exercise 1C Add.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 9. | 5 | 10. | 3 | 11. | 2 | 12. | 3 | 13. | 6 |
|  | +0 |  | +1 |  | +4 |  | +4 |  | +7 |
|  |  |  |  |  |  |  |  |  |  |
| 14. | 8 | 15. | 5 | 16. | 9 | 17. | 6 | 18. | 7 |
|  | +6 |  | +2 |  | +9 |  | +9 |  | +7 |
|  |  |  |  |  |  |  |  |  |  |
| 19. | 8 | 20. | 4 | 21. | 5 | 22. | 7 | 23. | 1 |
|  | +3 |  | +6 |  | +9 |  | +8 |  | +8 |
|  |  |  |  |  |  |  |  |  |  |
| 24. | 7 | 25. | 3 | 26. | 8 | 27. | 3 | 28. | 5 |
|  | +4 |  | +3 |  | +5 |  | +9 |  | +5 |

29. 0 + 7 =

30. 4 + 9 =

31. 1 + 6 =

32. 6 + 2 =

33. 9 + 3 =

34. 6 + 8 =

35. 6 + (2 + 3) = 36. (4 + 1) + 7 =

37. (3 + 0) + 4 = 38. 7 + (3 + 5) =

# Critical Thinking Skills

1. Write two number sentences to show that the order of the addends does not change the sum. Use the numbers 6 and 3.
2. Write two number sentences to show that changing the grouping of the addends does not change the sum. Use the numbers 4, 2, and 5.

# PART 2

**Adding 2 Digit Numbers with Regrouping**

Rachel runs a dog kennel. She buys 2 bags of dog food. One weighs 17 kilograms and the other weighs 24 kilograms. How many kilograms of dog food does Rachel buy?

When you add 2 digit numbers, the sum of the ones can be greater than 9. When this happens, you have to regroup 10 ones as 1 ten.

You can use place value models to add.

|  |  |
| --- | --- |
| □□□□□□ | Regroup 11 |
| □□□□□ | ones as 1 ten |
|  |
| □ | and 1 one |

Add 17 and 24. Follow these steps.

|  |  |
| --- | --- |
| Tens | Ones |
| 1¹ | 7 |
| +2 | +4 |
|  | 1 |

|  |  |
| --- | --- |
| Tens | Ones |
| 1¹ | 7 |
| +2 | +4 |
| 4 | 1 |

* 1. Add the ones.
  2. Regroup 11 ones as 1 ten and 1 one.
  3. Add the tens.

Rachel buys 41 kilograms of dog food.

*Example:* Add 33 + 49.

82

3¹3

+49

Regroup 12 ones as 1 ten and 2 ones.

## PART 2: Adding 2 Digit Numbers with Regrouping Practice Your Skills

**Exercise 2A**

**Add. Circle or highlight the 10 ones you regroup as 1 ten.**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | □□□□□ | Tens 2  +3 | Ones 5  6 | 2. | □□□ | Tens 5  +3 | Ones 3  9 |
| □□□□□□ | □□□□□  □□□□ |

**Exercise 2B Add.**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 3. | 27 | 4. | 19 | 5. | 38 | 6. | 52 | 7. | 64 | 8. | 34 |
|  | +11 |  | +26 |  | +17 |  | +30 |  | +19 |  | +7 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 9. | 73 | 10. | 60 | 11. | 57 | 12. | 43 | 13. | 16 | 14 | 35 |
|  | +5 |  | +14 |  | +35 |  | +28 |  | +48 |  | +25 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 15. | 63 | 16. | 14 | 17. | 80 | 18. | 39 | 19. | 67 | 20. | 48 |
|  | +28 |  | +57 |  | +17 |  | +11 |  | +24 |  | +23 |

**Real Life Math**

**Exercise 2C**

1. Ben bought 2 pumpkins at the farmers’ market. One weighed 13 kilograms and the other weighed 19 kilograms. How much did both weigh?
2. Fifty five customers visited the farmers’ market on Friday. Twenty nine customers went on Saturday. How many customers were there in two days?

# PART 3

**Estimating Sums**

Jackie is a cook at Soupzup restaurant. She made 32 cups of soup for the lunch crowd and 57 cups for the dinner crowd. About how many cups of soup did she make in all?

You do not always need an exact answer. You can find an estimate to tell about how many cups of soup were made.

Round each number to the nearest ten.

|  |  |  |
| --- | --- | --- |
| 32 | → | 30 |
| +57 | → | +60 |
|  |  | 90 |

Add the rounded numbers.

Jackie made about 90 cups of soup.

*Example:* Look at the menu at the right.

Menu

Soups

Sa

Main Meals Meatloaf

$6.50

Baked Chicken $7.99

|  |  |
| --- | --- |
| Broccoli | $3.75 |
| lads  Side | $3.25 |
| Ceasar | $4.75 |

Jeremy has $10.00

Does he have enough money to order baked chicken and a side salad?

Estimate: $3.25 + $7.99

$ 3.25 Line up the decimal points.

+ $ 7.99

$ 3.00 Round to the greatest place.

+ $ 8.00

$11.00

No, he does not have enough money for both.

## Part 3: Estimating Sums Practice Your Skills

**Exercise 3A**

**Round each number. Then estimate the sum.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | 27 | 2. | 35 | 3. | 14 | 4. | 53 | 5. | 44 |
|  | +13 |  | +11 |  | +37 |  | +18 |  | +21 |
|  |  |  |  |  |  |  |  |  |  |
| 6. | 36 | 7. | 62 | 8. | 21 | 9. | 15 | 10. | 56 |
|  | +28 |  | +14 |  | +38 |  | +49 |  | +24 |
|  |  |  |  |  |  |  |  |  |  |
| 11. | 16 | 12. | 24 | 13. | 43 | 14. | 67 | 15. | 19 |
|  | +69 |  | +32 |  | +43 |  | +25 |  | +31 |
|  |  |  |  |  |  |  |  |  |  |
| 16. | 40 | 17. | 22 | 18. | 71 | 19. | 82 | 20. | 23 |
|  | +37 |  | +58 |  | +12 |  | +9 |  | +45 |

**Exercise 3B**

**Round each amount to the greatest place. Then estimate the sum.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 21. | $1.35 22. | $5.07 23. | $7.85 | 24. | $11.35 25. | $13.55 |
|  | +2.27 | +2.99 | +4.50 |  | +15.87 | +24.62 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 26. | $25.78 27. | $17.22 28. | $24.63 29. | $49.73 30. | $34.15 |
|  | +32.12 | +13.89 | +45.17 | +24.01 | +38.75 |

**PART 4**

**Adding Greater Numbers**

When you add 3 digit numbers, the sum of the tens can be greater than 9 tens. When this happens, regroup 10 tens as 1 hundred.





10 tens = 1 hundred

*Example:* Add 264 + 372.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Step 1** | | | **Step 2** | | | **Step 3** | | |
| H | T | O | H | T | O | H | T | O |
| 2 | 6 | 4 | 2¹ | 6 | 4 | 2¹ | 6 | 4 |
| +3 | 7 | 2 | +3 | 7 | 2 | 3 | 7 | 2 |
|  |  | 6 |  | 3 | 6 | 6 | 3 | 6 |

Step 1: Add the ones. Regroup if necessary

Step 2: Add the tens. Regroup 13 tens as 1 hundred 3 tens. Step 3: Add the hundreds.

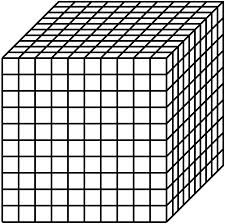
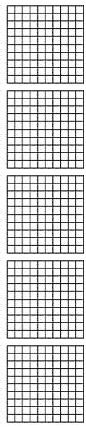
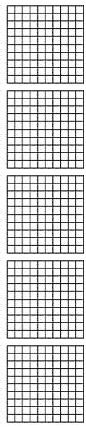
*Example:* Add 487 + 334

|  |  |  |
| --- | --- | --- |
| 4 8¹7 | 4¹8¹ 7 | 4¹8¹7 |
| +3 3 4 | +3 3 4 | +3 3 4 |
| 1 | 2 1 | 8 2 1 |

Regroup more than once.

When you add 4 digit numbers, the sum of the hundreds can be greater than 9 hundreds.

When this happens, regroup 10 hundreds as 1 thousand.



## 10 hundreds = 1 thousand

*Example:* Add 4,354 and 2,962.

|  |  |  |  |
| --- | --- | --- | --- |
| **Step 1** | **Step 2** | **Step 3** | **Step 4** |
| 4,354 | 4,3¹54 | 4,¹3¹54 | 4¹,3¹54 |
| +2,962 | +2,9 62 | + 2, 9 62 | +2, 9 62 |
| 6 | 16 | 3 16 | 7, 3 16 |

Step 1: Add the ones. Regroup if necessary.

Step 2: Add the tens. Regroup 11 tens as 1 hundred and 1 ten. Step 3: Add the hundreds. Regroup 13 hundreds as 1 thousand

3 hundreds.

Step 4: Add the thousands.

When you add greater numbers, you may need to regroup many times.

*Example:* Add 43,684 + 21,641.

43,684

+21,641

5

43,6¹84

+21,6 41

25

43¹,6¹84

+21, 6 41

3 25

43¹,6¹84

+21, 641

5, 325

43¹,6¹8 4

+21,6 4 1

65,3 2 5

## Part 4: Adding Greater Numbers Practice Your Skills

**Exercise 4A Complete.**

1. 16 tens = hundred tens. 2. 11 tens = hundred tens

1. 49 tens = hundreds tens. 4. 62 tens = hundreds tens

## Exercise 4B Add.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 5. | 324 | 6. | 516 | 7. | 287 | 8. | 628 | 9. | 412 |
|  | +263 |  | +275 |  | +107 |  | +394 |  | +278 |
|  |  |  |  |  |  |  |  |  |  |
| 10. | 364 | 11. | 781 | 12. | 437 | 13. | 517 | 14. | 614 |
|  | +389 |  | +129 |  | +367 |  | +183 |  | +209 |
|  |  |  |  |  |  |  |  |  |  |
| 15. | 612 | 16. | 241 | 17. | 384 | 18. | 417 | 19. | 199 |
|  | +135 |  | +287 |  | +219 |  | +384 |  | +285 |
|  |  |  |  |  |  |  |  |  |  |
| 20. | 4,183 | 21. | 3,089 | 22. | 7,899 | 23. | 8,907 | 24. | 5,037 |
|  | +3,187 |  | +4,685 |  | +4,462 |  | +3,017 |  | +4,985 |
|  |  |  |  |  |  |  |  |  |  |
| 25. | 6,184 | 26. | 4,896 | 27. | 9,843 | 28. | 4,612 | 29. | 7,984 |
|  | +5,897 |  | +3,064 |  | +2,381 |  | +3,079 |  | +2,163 |
|  |  |  |  |  |  |  |  |  |  |
| 30. | 84,621 | 31. | 63,481 | 32. | 41,016 | 33. | 56,107 | 34. | 73,985 |
|  | +35,163 |  | +4,794 |  | +38,947 |  | +31,816 |  | +43,016 |
|  |  |  |  |  |  |  |  |  |  |
| 35. | 12,073 | 36. | 27,006 | 37. | 68,144 | 38. | 30,483 | 39. | 68,621 |
|  | +28,409 |  | +38,879 |  | +23,095 |  | +3,949 |  | +39,774 |

**PART 5**

**Identifying Information Needed to Solve a Problem**

Sometimes problems do not include all of the information you need to answer the question.

Read the problem.

## Timothy wants to go on vacation. He gets 2 weeks vacation for each year of employment at the newspaper. How much vacation does he get?

Is there enough information to solve this problem? What information is needed to solve the problem?

* + how many years Timothy has worked at the news paper

## Where could you find this information?

* + from personnel?
  + from Timothy’s supervisor?
  + from Timothy?

Once you find the information, you can solve the problem.

## *Example:* Of the 9,864 visitors to Algonquin Park this year, how many were from Quebec?

Is there enough information to solve this problem? What information is needed to solve the problem? *A record of the visitors and where they are from.*

Can this information be found somewhere?

You cannot solve this problem, because no one keeps these kinds of records. To answer this question you write, *There is not enough information to solve the problem.*

## Part 5: Identifying Information Needed to Solve a Problem Practice Your Skills

**Real Life Math**

**Exercise 5A**

**Read the problem. Circle or highlight the letter of the information you would need to solve the problem.**

1. Bonnie bought a super-­‐saver airline ticket to Montreal. The price of the ticket was $389. How much money did she save by buying a super-­‐saver ticket?
   1. when she bought the ticket
   2. the cost of the regular priced airline ticket
   3. which airline she purchased the ticket from
2. Ronnie bought a computer magazine and a sports magazine at the newsstand. The total price for both magazines was $12.98. How much change did he receive?
   1. the price of each magazine
   2. the sales tax rate
   3. the amount of money given to the clerk

# Real Life Math

## Exercise 5B

**Write what information, if any, you would need to solve each problem. Solve the problems that can be solved.**

1. Marci bought 6 magazines for her flight from Charlottetown to Vancouver. She bought 3 more magazines during her layover in Toronto. How many magazines does she have now?
2. There were 3,457 visitors at the county fair this year. How many more people attended the fair this year than last year?
3. Charlie has enough sales reports to read a different one every day during the month of September and still have 7 left. How many sales reports does Charlie have?

# PART 6

**Column Addition**

Emilio is making dinner. He needs 8 white onions for the stew, 2 yellow onions for the gravy, and 1 red onion for the salad.

How many onions does Emilio need altogether?

You can add to find the total number. Grouping tens makes adding three or more numbers easier.

10

+ 1

11

10

8

2

+1

Emilio needs 11 onions in all.

*Example:* Add 6 + 2 + 3 + 4.

6

2

3

+4

10

2

10 + 3

15

## Part 6: Column Addition Practice Your Skills

**Exercise 6A Add.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | 3 | 2. | 4 | 3. | 5 | 4. | 1 | 5. | 2 |
|  | 2 |  | 2 |  | 3 |  | 7 |  | 6 |
|  | +7 |  | +6 |  | +5 |  | +9 |  | +8 |
|  |  |  |  |  |  |  |  |  |  |
| 6. | 3 | 7. | 2 | 8. | 5 | 9. | 6 | 10. | 2 |
|  | 4 |  | 4 |  | 9 |  | 8 |  | 6 |
|  | 7 |  | 6 |  | 3 |  | 9 |  | 8 |
|  | +9 |  | +8 |  | +1 |  | +4 |  | +4 |
|  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 11. | 45 | 12. | 89 | 13. | 56 | 14. | 42 | 15. | 22 |
|  | 36 |  | 16 |  | 39 |  | 16 |  | 18 |
|  | +14 |  | +32 |  | +18 |  | +58 |  | +48 |
|  |  |  |  |  |  |  |  |  |  |
| 16. | 12 | 17. | 46 | 18. | 33 | 19. | 53 | 20. | 38 |
|  | 17 |  | 38 |  | 62 |  | 22 |  | 58 |
|  | +89 |  | +17 |  | +24 |  | +39 |  | +74 |

**Mental Math**

When you add greater numbers in your head, look for ways to make it easier. Add 23 + 5 in your head.

23

+ 5

28

Ten more

13

+5

18

Ten more

Ten more

Ten more

3

+5

8

Begin with a basic fact

## Use mental math to add.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 21. | 6 | 16 | 26 |  |  | 22. | 3 | 13 | 23 |
|  | +9 | + 9 | + 9 |  |  |  | +2 | + 2 | + 2 |

**Real Life Math**

**Buying a New Car**

New cars come equipped with standard features that make up the base price of the automobile. All new cars are labeled with stickers when they are shipped from the factory to the dealer.

The sticker price of the car is the total of the base price, the options, and the destination charges (freight, delivery, PDI).

*Example:* Marcus wants to buy a new car. The car has many options.

Marcus chose to get the upgraded stereo system with Bose speakers for $1,529 and the heated seats for $515. What is the total cost of the options?

$1,529 + $515 = $2,044

The total cost of the options is $2,044

## Complete the table by adding to find the sticker price.

|  |  |  |  |
| --- | --- | --- | --- |
| Base Price | Price of Options | Destination  Charges | Sticker Price |
| $ 9,857 | $1,072 | $1,200 |  |
| $10,010 | $ 957 | $1,100 |  |
| $13,894 | $ 3,007 | $1,275 |  |
| $ 9,845 | $ 709 | $1,125 |  |
| $15,568 | $987 | $1,100 |  |

**Real Life Math**

**Module 2 Task Based Activity: Interpret a Nutrition Label**

1. Brian’s doctor has advised that he should lower his daily fat intake so he is keeping track of how many grams of fat he eats in a day. His breakfast contained 12 grams of fat. His lunch had 17 grams, and his dinner had 13 grams of fat. How many grams of fat did Brian have today?
2. Look at the nutrition label. How many total grams of fat per serving does this product contain?

Circle, highlight or underline the number of grams of saturated fat per serving this product contains.

# Module 2: Adding Whole Numbers Review

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Add.** |  | | | | | | | | |
| 1. | 3 | 2. | 4 | 3. | 6 | 4. | 1 | 5. | 6 |
|  | +0 |  | +9 |  | +3 |  | +7 |  | +6 |
|  |  |  |  |  |  |  |  |  |  |
| 6. | 16 | 7. | 89 | 8. | 42 | 9. | 38 | 10. | 25 |
|  | +14 |  | + 3 |  | +19 |  | +24 |  | +39 |
|  |  |  |  |  |  |  |  |  |  |
| 11. | 389 | 12. | 467 | 13. | 841 | 14. | 507 | 15. | 167 |
|  | +252 |  | +227 |  | +389 |  | +258 |  | +284 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 16. | 3,841 | 17. | 5,187 | 18. | 6,074 | 19. | 4,146 | 20. | 2,899 |
|  | +2,173 |  | + 3,980 |  | +1,963 |  | +3,278 |  | +5,776 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 21. | 14,873 | 22. | 38,684 | 23. | 68,142 | 24. | 30,707 | 25. | 53,869 |
|  | +12,427 |  | +10,807 |  | +17,893 |  | +13,014 |  | +12,947 |

## Estimate the sum.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 26. 37 | 27. | 63 | 28. | 45 | 29. | 39 | 30. | 77 |
| +24 |  | +14 |  | +22 |  | +14 |  | +13 |

**Complete the word problem chart below.**

|  |  |  |
| --- | --- | --- |
| **Problem** | **Show Your Work** | **Answer** |
| Tom works at a pet shelter. There were 7 cats living at the shelter. Yesterday, 2 more cats were dropped off. Today, one of the cats gave birth to 4 kittens. How many cats are living at the shelter in total? |  |  |
| Sara is working at Walmart. She is working overnight to help with inventory. Her job is to count all of the towels. Before her break she counted 13 towels, after her break she counted 36 towels. How many towels has she counted in total? |  |  |
| The local hospital has 112 patients on the 1st floor, 237 on the 2nd and 3rd floors and 344 on the remaining floors. How many patients are in the hospital all together? |  |  |