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## UNIT 1 Large numbers

## Read and answer the question.

TAKE the CHALLENGE

There was a flower festival in the city last month. In the festival there were displays of tulips and daffodils.

There was a total of 110000 flowers. 70000 were daffodils. How many tulips were there?


Write the numbers in thousands, hundreds, tens and units.
6529- $6000+500+20+9$
8765 -
7123-
2345-
1998-
Look and answer the questions.

| 9 | 5 | 1 | 4 | 3 | 8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

a) What is the greatest number you can make?
b) What is the second greatest number you can
make?
c) What is the third greatest number you can make?

## Look and read. Then place the numbers in the correct section.



3


a)
b)
c)
d)
e)

## Read and write the numbers.

a) Two thousand two hundred
b) Twenty-one thousand three hundred and ninety four
c) Two hundred and forty - five thousand
d) Four hundred and thirty - two thousand six hundred and sixty - one
e) Three hundred fourteen thousand four hundred and fourteen

Order the numbers from the smallest to the largest.
3586
2798
1562
3249
2942
Smallest number $\square$ Largest number
655946
474311
265782
322634
432920
Smallest number
$\qquad$
Largest number

Order the numbers from the largest to the smallest.


Look and read. Then write the value of the underlined numbers.


7


0
4
4


2

a) $7 \quad 598 \quad 171$
b) $2588 \quad 4 \underline{8} 1$
c) $\underline{2} \quad 104 \quad 744$
d) $9 \quad 117 \quad 005$
e) $3 \quad 1 \underline{5} 8 \quad 415$


## Read and write the numbers on the lines. Then find their place in the puzzle.

a) Three hundred twenty seven thousand six hundred nineteen
b) Seven hundred forty one thousand ninety three
c) Two million nine hundred thirty six thousand eighty one
$\qquad$
d) Five hundred forty two thousand seven hundred thirty
e) Eight million nine hundred one thousand four hundred seventy three
f) One million four hundred six thousand two hundred seventy one
g) Five hundred seventeen thousand four hundred nine
h) Twenty thousand three hundred fifty seven


## Word problems

## Read and answer the questions.

In the local library there are 98456 old books. The manager decided to add 7876 new books.

How many books will there be in the library?

|  |  |  |  |  |  |  |  |
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A store sold 23500 bottles of water on Monday and 32540 bottles on Tuesday.

How many bottles of water were sold on these two days?


|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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The population of Green Land Town was 8363710 in 2008. It was expected to increase by 1201452 by the end of the next year.

What was the expected population of Green Land Town by the end of the next year?

|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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#  <br> <br> You're up! 

 <br> <br> You're up!}

Read and help the pirate discover the route to the hidden treasure in the board below. Colour the correct digits and fill in the numbers at the end to find out how much the treasure is worth. Write the number with words as well.


| A | B | D | E | F | G |
| :---: | :---: | :---: | :---: | :---: | :---: |

The treasure is worth $\qquad$


## Number patterns

## TAKE the CHALLENGE

## Read and answer the questions.

A mathematics teacher invented a machine that prints series of numbers. Students have to type the numbers using a keyboard.

The first time they used the machine, they typed the number 710 and the following numbers were printed:

1. How does the machine work? $\qquad$
2. If the pattern printed continues, what will the next number be?
3. If students type the number " 2500, " what will the next fournumbers be? $\qquad$

Look and count to find the missing numbers.

| 482140 |  | 482142 | 482143 |  | 482145 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 388115 |  | 388117 | 388118 |  | 388120 |
|  | 234563 | 234564 |  | 234566 | 234567 |
| 12460 | 12461 |  |  | 12464 | 12465 |
| 3978497 |  |  |  |  | 3978502 |
| 8978499 |  |  |  |  | 8978504 |

## Adding boxes

Read and complete.


Read and complete the math sentences.
a) 10 more than 546987 is
b) 100 more than 436756 is
c) 1000 more than 653120 is
d) 1000 more than 230987 is
e) 10 more than 769165 is

Look, add and write the final number.


Count in 10s, 100s and 1000s - write the missing numbers.
Count in 10s - 132567
Count in 100s-876 453
Count in 1000s - 987321

Count in 10s - 327443
Count in 100s - 456765
Count in 1000s - 657322 $\qquad$
Guess the rule and write the next two numbers in the sequence.
123678
124678
125678
126678

Rule: $\qquad$

675739
675749
675759
675769

Rule: $\qquad$

393276
393376
393476

Rule: $\qquad$

101234
102234
103334
104334

Rule: $\qquad$


#  You're up! 

Look and add or subtract from the numbers on the left.


## Multiplication

## TAKE the <br> CHALLENGE

## Read and answer the questions.

Saul and Rossy are going to a picnic with their friends.
Their mum wants to prepare some fruit salad for all the kids to eat in the morning.
To prepare the salad, Saul and Rocy's mum will need:
3 bananas
6 apples
2 oranges


How much money does she need for the bananas?
How much money does she need for the apples?
How much money does she need for the oranges?
How much money does she need for all the fruit?
At this moment she has 50 pesos, how much money does she need to buy all the fruit for the salad?

## Count the feet and say the number of toes.



## Multiply the numbers by the center number.



## Look and complete the multiplication table.

| X | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| :---: | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| 2 | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
| 3 | 0 | 3 | 6 | 9 |  | 15 |  | 21 | 24 | 27 |  | 33 | 36 | 39 |  | 45 |
| 4 | 0 | 4 | 8 |  | 16 | 20 | 24 | 28 |  | 36 | 40 | 44 |  | 52 | 56 |  |
| 5 | 0 | 5 | 10 | 15 |  | 25 |  | 35 | 40 | 45 |  | 55 | 60 |  | 70 | 75 |
| 6 | 0 | 6 | 12 | 18 | 24 |  | 36 | 42 |  | 54 | 60 |  | 72 | 78 |  | 90 |
| 7 | 0 | 7 | 14 |  | 28 | 35 | 42 |  | 56 | 63 | 70 | 77 |  | 91 | 98 | 1 |
| 8 | 0 | 8 | 16 | 24 | 32 |  | 48 | 56 | 64 |  | 80 |  | 96 | 104 | 112 |  |
| 9 | 0 | 9 | 18 |  | 36 | 45 | 54 |  | 72 | 81 | 90 | 99 |  | 117 |  | 135 |
| 10 | 0 | 10 | 20 | 30 | 40 |  | 60 | 70 | 80 |  | 100 | 110 | 120 | 130 | 140 |  |
| 11 | 0 | 11 | 22 |  | 44 | 55 | 66 |  | 88 | 99 | 110 |  | 132 |  | 154 | 165 |
| 12 | 0 | 12 | 24 | 36 | 48 |  | 72 | 84 | 96 |  | 120 | 132 |  | 156 | 168 | 180 |
| 13 | 0 | 13 | 26 |  | 52 | 65 | 78 |  | 104 | 117 |  | 143 | 156 |  | 182 |  |
| 14 | 0 | 14 | 28 | 42 | 56 |  | 84 | 98 |  | 126 | 140 | 154 |  | 182 |  | 210 |
| 15 | 0 | 15 | 30 |  | 60 | 75 |  | 105 | 120 | 135 |  | 165 | 180 | 195 | 210 |  |

## Multiples and factors

## Look and read.



Look, find and write.

Find the factors of 42.
Find the factors of 15 .


Find the factors of 36.
Find the factors of 14 .


List the first five multiples of the following numbers.
a) 5
b) 12 $\qquad$
C) $\mathbf{2 2}$ $\qquad$
d) 16 $\qquad$
List the factors of the following numbers.
a) $\quad 15$
b) 24
C) 100
d) 64

Draw lines to match the factor pairs.


Find the greatest common factor.


22-44


Write these numbers in the Venn diagram.


## Word problems

## Read and answer the questions.

1. There are 7 bunches of bananas. Each bunch has 13 bananas.

How many bananas are there in all?
There are $\qquad$ bananas all together.
2. A gardener has planted 8 trees in a row. If there are 14 rows, how many trees are there altogether? There are $\qquad$ trees all together.

3. There are 12 swings in the park. On each swing, there are 3 children. Find the total number of children.


There are $\qquad$ children all together.
4. John eats 3 meals a day. How many meals does he eat in one month?
He eats meals in a month.

5. There are 12 baskets. Each basket has 11 apples. How many apples are there altogether? There are $\qquad$ apples all together.


# To You're up! 

Look and choose a number from each box. Adding the numbers will give you the result on the left and multiplying them the product on the right.

| 11 | 12 | 4 | 13 | 15 | 8 | 12 | 14 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



## UNIT 2 Mental addition and subtraction

## TAKE the CHALLENGE

Look, think and arrange the numbers.
Make every circle add up to 11.
$1,2,3,4,5,6,7,8$, and 9 .


## To add numbers mentally you can:

- use patterns.
$8+4=12$
$80+40=120$
$68+4=72$
- use rounding.

$$
28+9=28+10-1=37
$$

$25+26=25+25+1=51$
$60+49=60+50-1=109$
$45+47=45+45+2=92$

There is another option; you can break the numbers up.
$88+42=88+2=90+40=130$
Look, answer and tick the box if you got it correct. You have 2 minutes.

$56+28=\square$
$6+5=\square$
$96+23=\square$
$12+7=\square$
$34+70=\square$
$47+35=\square$
$21+14=\square$
$9+2=\square$
$25+23=\square$
$92+11=\square$
$8+15=$ $\square$
$\qquad$ out of 12.

## Read and answer using mental calculation only.

a) What number is fourteen more than thirty-three?
b) What is the total height of two buildings 12 meters tall?
c) Add together fifty-seven and twenty-five.
d) In fourth grade are two groups. One group has thirty-two chairs and the other one has twenty-eight chairs. How many students can you sit in total?

Colour to match the numbers that make the total 218.


Complete the chart. Do not use any paper or calculator.

| + | 12 |  | 7 | 14 |  | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 20 |  |  |  |  |  |
|  |  |  |  | 24 |  |  |
| 15 |  | 33 |  |  | 24 |  |
| 11 |  |  |  |  |  |  |
| 18 |  |  |  |  | 27 |  |

## Add the numbers.



Throw two dice and add up the numbers. Then get the total number.
Round 1-5 throws


Total number: $\qquad$
Round 2-5 throws


Total number: $\qquad$
Round 3-5 throws


Total number: $\qquad$

To subtract numbers in your mind, you can:

- subtract in two parts.
$53-8: 53-3=50-5=45$
$46-9: 46-6=40-3=37$
- use subtraction patterns.
$14-6=8$
$74-6=68$
- subtract in parts (tens and ones).
- use rounding.
$75-21: 75-20=55-1=54$
$97-33: 97-30=67-3=64$
$74-39:$ $74-40=34$ $+1=35$
$64-28: 64-30=34+2=36$

Look, answer and tick the box if you got it correct. You have 2 minutes.

a) What is the difference between 76 and 99?
b) How much less is 36 than 67 ?
c) What is 95 take away 77 ?
d) How much less is 46 than 87 ?

## Read and answer the questions.

a) A big apple tree has sixty apples. Thirty-nine of those apples are not ripe yet.

How many ripe apples does the tree have?
b) Jeremy's assignment this weekend is to read a book with 69
pages. On Saturday he read 26 pages.
How many pages does he need to read on Sunday?

c) There were seventy employees working in an office. 34 of them went to the cafeteria to have lunch.

How many employees are left in the office?

d) Professor Carter gave his sevenfy-one students a choice between writing a paper and faking an exam. Twenty-nine of them wrote a paper.

How many students took the exam?

e) A school library bought 83 new books in the last two years. Thirty-six of those books were bought this year.

How many new books did the library buy last year?


## Addition and subtraction with 6 digits



## Read and answer the question.

Mr . Miller has a shop at the city centre. In his shop, there are 15718 DVDs. 6199 are audio DVDs and the rest of them are video DVDs.

Find the number of video DVDs in Mr. Miller's shop.
T $\qquad$ a $\qquad$ v $\qquad$ DVDs i $\qquad$ Mr. M $\qquad$ $s$

|  |  |  |  |  |  |  |  |  |  |  |  |  |
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To work out 6-digit additions, keep on adding until you have no more numbers to add. Remember, when you get a number bigger than ten, add the tens number in the next line.

Look at the examples.

$$
\text { What is } 547381+212345 ? \quad \text { What is } 381576+290734 ?
$$

1111
381576
$+\quad 290734$

Solve these.
a)

$$
\begin{array}{r}
381576 \\
+\quad 290734
\end{array}
$$

b)
745079
$+854661$
c) 420670 + 985410

## Read and answer the questions．

During a military parade， 176790 U．S．flags were used and 117210 U．S．flags were unused． How many U．S．military flags were available during the parade in total？

A man has bought land in two different states．In California he paid \＄239610 for his new land and \＄ 592730 for his new land in Texas．
What is the total value of the land the man has just bought？

A leading mobile phone company manufactures 486570 smart phones and 540920 tablets in a year．
How many smart phones and tablets are
 manufactured altogether in a year？


During 2014－2015 school year，primary schools awarded 802654 diplomas and secondary schools 179833 diplomas．
How many diplonas were awarded in total？

To work out 6-digit subtractions, keep on subtracting until you have no more numbers to subtract. Remember, when the number below is bigger than the one above, think of the one above as the next tens number and add the tens to the number below in the next line.

Look at the examples.

What is 586323-17367?
What is $945619-697585 ?$

## $\begin{array}{llllll}5 & 8 & 6 & 3 & 2 & 3\end{array}$

- $\quad 1 \begin{aligned} & \text { + } \\ & \mathbf{7}+1\end{aligned} \mathbf{3}_{+1} \mathbf{6}_{+1} \mathbf{7}$


## $\begin{array}{llllll}5 & 6 & 8 & 9 & 5 & 6\end{array}$

Solve these.
a)

$$
\begin{array}{r}
915418 \\
14267
\end{array}
$$

b)
751926
c) 416358

- 12564

Look and complete the boards.

| - | 56 | 79 | 43 | 80 | 92 |
| :---: | :--- | :--- | :--- | :--- | :--- |
| 25 |  |  |  |  |  |
| 16 |  |  |  |  |  |
| 38 |  |  |  |  |  |
| 41 |  |  |  |  |  |
| 12 |  |  |  |  |  |


| - | 18 | 16 | 19 | 17 | 15 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 11 |  |  |  |  |  |
| 13 |  |  |  |  |  |
| 10 |  |  |  |  |  |
| 15 |  |  |  |  |  |
| 12 |  |  |  |  |  |

##  You are up!

## Read and answer the questions.

a) What is the largest number you can make with these digits? $0,1,2,3,5,6,7$ and 9 .
b) Subtract 150 from this number.
c) What is the smallest number you can make with the digits? $9,7,6,5,3,2$ and 1.
d) Add 250 to that number.
e) What is the closest number to 50 million you can make using the digits? $0,1,2,3,5,6,7$ and 9 .

encer
$\qquad$
f) Write at the number $36105395 \ldots$

Round it to the nearest 10 .
Round it to the nearest 100.
Round it to the nearest 1000.
Round it to the nearest 10000.
$\qquad$
$\qquad$

Round it to the nearest 100000. $\qquad$
Round it to the nearest 1000000.


## Adding and subtracting money

## Read and answer the questions.

Some friends are at a stuffed - animals store. These are the stuffed - animals they can buy and the price for each.

## TAKE the CHALLENGE




64 ©


83


21 ¢


92 ©
a) Angela has 96 cents. If she buys a stuffed-cat, how much change will she get back?
b) Pedro has 78 cents to buy a stuffed-duck. How much change will he get back?
c) Daniela wants to buy a stuffed-monkey. She has 42 cents. How much change will she get back?
d) Ramiro has $\$ 1.45$. He wants to buy a stuffed-dog and a stuffedmonkey. How much will he have left?

You can change dollars into cents and cents into dollars. Look at the coins and the bill below. What is the word for each?


One dollar


25 ©


Dime
10 ©


Nickel 5 "


Penny

## Convert these into cents.

a) \$ 1.25
d) \$ 2.35
b) $\$ 3.48$
e) $\$ 5.45$
c) $\$ 8.62$
f) \$ 12.34

Convert these into dollars.
a) 175 ('
d) 123 (
b) 432 ©
e) 345 ©
C) 515 ¢
f) 605 C


Add the money in each set.


## Read and complete.

To give change, you have to subtract!
What is the change from $\$ 20$ for a sweater costing $20-13.9=$ $\qquad$ \$13.9?

## Look at what the following people have bought and write the change they

 got.
a) A truck + a car = $\qquad$ . What's the change from $\$ 10$ ?
b) A ball + a train $=$ $\qquad$ . What's the change from \$ 15 ?
c) The blocks + a teddy $=$ $\qquad$ . What's the change from \$ 30? $\qquad$
d) A drum + a boat $=$ $\qquad$ . What's the change from \$ 30 ?
e) A doll + teddy = $\qquad$ . What's the change from $\$ 30$ ?


## Look and answer the questions.

a) Daniela had \$20. She bought a green handbag.

How much money does she have left?
b) Martha buys a pair of green shoes and a green wallet. She has a coupon worth $\$ 12.75$. How much money does she need to pay?
c) Andrea bought a pair of red shoes and a grey hat. How much money did she pay?
e) If Sharon bought all the matching accessories for her Orange dress, how much money would she pay?

d) Susan has enough money to buy the cheapest handbag. How much more money does she need to buy the most expensive one?


## Read the menu and answer the questions.

## MENU


$\$ 5.15$

\$8.15

\$ 2.36

## \$ 10.00

a) Maria ate a salad and a sandwich. How much did she pay?
b) María had \$ 20, how much does she have now?
c) Fran and Sally bought two sodas and a pizza. What was their total?
d) You have \$ 20 to spend. What would you eat at the restaurant?
e) Would you get any money left?
f) Bernard spent \$ 24.07. What did he eat?
g) If you buy 5 cupcakes, how much will you pay?

## Length, weight and time conversion



## Read and answer the questions.

Dan is 145 centimeters tall, Kevin is 1.23 meters
tall and Fred is 15 decimeters tall.
Who is the tallest? $\qquad$
What did you do to find the answer?
$\qquad$
$\qquad$
How can you measure someone using objects from the classroom but not your ruler?
$\qquad$
$\qquad$

In this conversion chart, the base unit is "the meter," meaning that the numbers are the equivalencies according to "one meter."

## The Metric Conversion Chart



By using this table we can say that:

- 60 decimeters $=6$ meters
- 123 centimeters $=1.23$ meters
- 1 kilometer $=1000$ meters
- 10 meters $=1$ decameter



## Convert the following measures using the chart.

a) 10 kilometers $=$ $\qquad$ meters.
b) 5 hectometers = $\qquad$ meters.
c) 120 decimeters $=$ $\qquad$ centimeters.
d) 11200 millimeters = $\qquad$ meters.
e) 300 meters $=$ $\qquad$ kilometers.
f) 2.44 kilometers = $\qquad$ meters.


In pairs, measure the following body parts and report the answers in centimeters and millimeters.

Draw yourself and write the answer.

## Word problems - Length

## Read and answer the questions.

a) Blanca's mother is making bottles to decorate her kitchen and she has 63 centimeters of ribbon. She needs 16 centimeters of ribbon for each bottle.
How many bottles can she decorate?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

b) A students painted 90 centimeters of a wall, then another student painted 3450 millimeters and the teacher painted the last 2 meters of the wall.
What was the total width of the wall?

c) When Ben was 10 years old, he was 1.35 meters tall. His son is ten now and he is 14 decimeters tall.
Who is taller?

|  |  | 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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## Weight

## Read and answer the question.

Everything on Earth has a weight because everything is affected by gravity. So weight is how gravity pulls everything to the center of the Earth.
Tom has a box of books that weighs 1.2 kilograms. Sara has a box that weighs 625 grams.
How much more weighs Tom's box than Sara's?
The following chart will help you to make conversions.
Each metric unit gets 10 times bigger.


Convert the given measures using the chart above. Follow the guides.
a) 6000 milligrams $=$ $\qquad$ grams.
b) 3 Decagrams $=$ $\qquad$ decigrams.

6000 divided by $1000=$ $\qquad$ - $\quad$ 3 multiplied by $10=$ $\qquad$ .
6 multiplied by $1=$ $\qquad$ 30 multiplied by $10=$ $\qquad$ .
c) 1670 grams $=$ $\qquad$ Hectograms. divided by $100=$ $\qquad$ .
d) 500 Hectograms $=$ $\qquad$ Kilograms.
multiplied by $\qquad$ $=$ $\qquad$ .
divided by $\qquad$ $=$ $\qquad$ .
e) 170 centigrams = $\qquad$ grams.

## Word problems - Weight

## Read and answer the questions.

a) Sam has to balance the weight between some apples and a watermelon.

Each apple weighs 35 grams and the watermelon weighs 3.5 kilograms.
How many apples does he need to make the apples as heavy as the watermelon?

|  |  |  |  |  |  |  |  |  |  |  |  |  |  | $A$ |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
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b) Anna buys 3 kilograms of seeds. She sells cans with 125 grams of seeds for $\$ 25$.

1. How many cans can she fill?
2. How much can she earn if she sells all of them?

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c) Each candy has 1345 milligrams of sugar. How many candies do you need to collect 2.5 kilograms of sugar?

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## Word problems - Time

## Read and answer the questions.

We know that...

1 minute $=60$ seconds
1 hour $=60$ minutes

1 day $=24$ hours
1 week $=7$ days

1 month $=4$ weeks
1 year $=12$ months
a) George's family is making a trip by car. They travel 95 kilometers per hour.

How many kilometers can they go in two days?

b) A machine can fill 20 bottles of water every 30 minutes. How much time does the machine need to fill 100 bottles?

c) Every 15 minutes, an airplane arrives to the city. If the first plane arrives at 6 am, what time does the $15^{\text {th }}$ plane will land?

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## Look at the calendar and answer the following questions.


a) Sara is going to Canada for three weeks. If she goes on May $15^{\text {th }}$, when is she coming back?
b) Mike's birthday is on November $14^{\text {th }}$. Today is May $2^{\text {nd }}$. How long is it before his birthday?
c) Gina received on September $12^{\text {th }}$ the backpack she ordered on-line. If the delivery takes a week, when did she buy the backpack?
d) Frank finished his course on February $24^{\text {th }}$. He has a two-week break before his next course.
When does the course start?
e) The students have exams every 30 class days. In February, the exams were on the $19^{\text {th }}$. When are the next exams?

Look and write the title for each section. Then complete the tables.

a) $3500 \mathrm{~g}+2900 \mathrm{~g}=$ $\qquad$
kg
b) $2600 \mathrm{~g}+1280 \mathrm{~g}=$
kg
c) $7 \mathrm{~kg}+4325 \mathrm{~g}=$ $\qquad$ kg $\rightarrow$
d) $8700 \mathrm{~g}+200 \mathrm{~g}=$ $\qquad$ kg
e) $1350 \mathrm{~g}+1100 \mathrm{~g}=$
kg
f) $5000 \mathrm{~g}+4 \mathrm{~kg}=$ $\qquad$
conversion
a) $2450 \mathrm{secs}=$
hours
b) 13 mins $42 \mathrm{secs}=$ $\qquad$secs
c) 10080 mins daysd) 1 day 1 hour $=$
$\qquad$ mins
e) 34 days 576 hours $=$ $\qquad$ days
f) 1 min 19 secs $=$ secs


## UNIT 3 Multiplication word problems



Solve the operations on a separate sheet of paper. Write the results of four multiplications downwards. This order must show you the answers to the other four "across."

d)

g) $\begin{array}{r}46 \\ \times \quad 7 \quad 5 \\ \hline\end{array}$
b)

e) 44 $\times 35$
c) 94 $\times 91$

$$
\text { f) } \begin{array}{r}
98 \\
\times \quad 97
\end{array}
$$



Read and complete.

| mean that many | it | these |
| :---: | :---: | :---: |

There are $\qquad$ special words you can find in multiplication word problems; $\qquad$ words also multiplication, product, by, times and lots of.

When you have to answer a word problem, it is very important $\qquad$ you understand all the information in $\qquad$ and what kind of
 answer to look for.

## Read and answer the questions.

a) Greg's toy box has 35 toys.

How many toys are there in 5 similar boxes?
Every child in his class has the same amount of toys in their toy boxes, how many toys will there be if there are 25 students?

b) A man can climb 3.6 kilometers per day, If he can climb the mountain in 7 weeks, how tall is the mountain?

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c) A pizza restaurant sells 137 pizzas every day. Each pizza costs $\$ 148$

How much does the restaurant earn each week?

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$\square$

Throw the dice, write the numbers and multiply. Then double and triple them.


## Two - digit and long divisions



Read and guess the numbers.
a) $\qquad$
b) $\qquad$
c)
$\qquad$
d) $\qquad$
a) Divide me by 6 and add 3. Divide this by 3 , then multiply by 4 to get 12 .
b) Multiply me by 3, then add 3. Divide by 5 , then subtract 4 . The final answer is 2.
c) Divide 24 by me, then multiply by 5 . Subtract 7 and multiply by 7 . You get 56 .
d) Divide me by 5 , subtract 9, then multiply by 6 . Subtract 2 , then multiply by 4 to get 16 .


Look and label the parts of the division.

dividend


## Read and complete.

This is how we proceed with long divisions:
15 cannot go into 3 . So we go to the Next carry down the 4 to make 64. next digit. 15 goes into 36 two times. If Now 15 goes into 64 four times. Take we subtract 36 minus 30 , it equals 6 . 60 from the 64 to get your remainder, which is 4 .


Answer the next divisions and circle in red the remainder "when it is not zero."
a)
5

b) $3 \longdiv { 9 \quad 7 \quad 6 }$
c) 29

| $7 \quad 8 \quad 1$ |
| :--- | :--- | :--- |

d) $5 5 \longdiv { 2 4 } 4$
e) 3
6
$\longdiv { 6 4 7 }$
f) $9 \quad 1 \longdiv { 7 } 4 \begin{array} { l l l } { 7 } & { 4 } \end{array}$

## Word problems

## Read and answer the questions. Do the operations on a separate paper.

a) In the airport, the baggage has to be put in order. Each
bag takes 62 centimeters. If the cellar measures 895 centimeters, how many bags go into it?

Explain what you did to discover the answer.

b) Tom has 530 cookies and he has to make 45 cookie jars. How many cookies does he need to put in each jar? Explain what you did to discover the answer.
$\qquad$
$\qquad$
c) Mary has to feed her fish. Each fish eats 20 grams. If she has a bag of half a kilo, and she uses it all, how many fish does she have?

Explain what you did to discover the answer.

Make a path through the maze by colouring all the side-by-side equivalent pairs.


## Triangles



Read and answer the question. Then draw.

Look at the figure below. How many triangles can you see?

Draw three lines over it so you can get
11 triangles and number them.


Read and underline the characteristics of the sides a triangle has. Then look at the triangles and label them.

Triangles are polygons that have some properties you should remember:

- The sum of the angles is always $180^{\circ}$.
- Triangles can be categorized by the measure of their angles and by their sides.



## Classifying triangles by their sides



## Classifying triangles by their angles

Right triangle
It has 1 angle that is a right angle $\left(90^{\circ}\right)$.


Acute triangle
It has all 3 angles that
are acute angles (less
than $90^{\circ}$ ).


Obtuse triangle
It has 1 angle that is an obtuse angle (greater than $90^{\circ}$ ).

$\qquad$
$\qquad$

## 54

## Write the measure of the missing angles in each triangle.

a)

b)

c)
e)

Classify the triangles above by their angles and sides.
Angles
Sides
a)
b)
c)

d)
e)
f)

## Drawing triangles

## Read and draw triangles using the measures below as the base line．

Step 1.
First draw a straight line as the base of the triangle．

Step 3.
Repeat the trace switching the side of the compass－ where both sides cross．


Step 2.
Put the point of your compass at one end of the segment and trace a quarter of circle．

## Step 4.

Complete the triangle．
a） 3 cm
b） 5 cm

c） 8 cm


56

# bean You're up! 

Read, write and colour.

Isosceles triangle Characteristics:

Scalene triangles
Characteristics:

Colour them green.

Equilateral triangles
Characteristics:

Colour them blue.


## UNIT 4 Symmetry



Symmetry is when one shape becomes exactly like another if you flip, slide or turn it. The simplest type of it is reflection.


Draw lines of symmetry and write the number of lines each shape has.
a)

b)

c)


It has $\qquad$ line(s).
It has $\qquad$ line(s).


It has $\qquad$ line(s). $\qquad$ line(s). It has $\qquad$ line(s).

Look and draw the reflections.


59

Draw the missing part of this drawing.


Make the following quadrilaterals in paper and fold them up to find their lines of symmetry. Then glue them in the spaces below and write your findings on the shapes being symmetrical or not.


## Decimals

## TAKE the CHALLENGE

Read and colour the boxes to match the numbers. Then explain what you did to find the paring.

| $7 / 100$ | $7 / 1000$ | $9 / 100$ | $7 / 10$ |
| :---: | :---: | :---: | :---: |
| 0.007 | 0.7 | 0.07 | 0.09 |

Read and write the number in words.

Decimal: It is a number that has a decimal point followed by digits that show a value which is smaller than one.

To read and write decimals, you have to read the whole number first. Then use "and" for the decimal point and read the digits to the right of the decimal point as a whole number. Finally, say the place name of the last number.

Example:
25.578 = Twenty-five and five hundred seventy-eight thousandths
$325.548=$
 .


Write the place name of the coloured number.
a) $34.761=$
b) $7.543=$
c) $113.9=$
d) $78.335=$
e) $9.28=$

Write the numbers as words.
a) $67.72=$
b) $92.482=$
c) $12.3=$
d) $88.256=$
e) $164.591=$

Order the numbers from the smallest to the greatest.


## Adding and Subtracting decimals

Read and answer the questions.
a) What is the total of 45.97 plus
12.61?
b) What is the difference

Explain what you did to find the answer.
$\qquad$

## Read and complete.

To add and subtract decimals, you have to line up the terms so that all the decimal points are in a vertical line.


## Line up the numbers to answer these additions and subtractions.

a) $34.71+46.11$
b) $56.33-12.42$
C) $97.26+75.63$

| d) $89.15-22.64$ |  |  |  |  |  | e) $17.49+9.05$ |  |  |  |  |  |  | f) $38.27-6.54$ |  |  |  |  |
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## Word problems

## Read and answer the questions.

a) Susan had 10.4 cm of rope and she gave 4.3 cm to Dan.

How much rope does she have left?


How many kilometers do they run together?

c) Jen had 1.5 kilograms of sugar and she made some lemonade. She used 400 grams. How much sugar does she have left?

d) Ken had 10 litres of water and he filled a bucket with 3.8 litres.

How many litres does the other bucket have?


## Read and draw lines to match the questions with the correct answers.

Rocy drew a line of 563.4 cm in 2 minutes.
Andrea drew a line of 78.934 cm in 1 minute. How long are the lines together?

Azul bought 6 Cds for $\$ 58.25$ and Bertha bought 25 Cds for 273.67.
How much money did they spend?

Carla drove 893.4 miles in 2 days. Carlos drove 456.378 miles in 4 days. How far did they travel together?

Ken made a goal from 78.34 yards during a game, while Joshua made a goal from 134.298 yards. How much farther did Joshua kick the ball than Ken?

Jessie had 780 pounds of chocoldte. She gave 456.908 pounds to Jeremy. How much chocolate does Jessie have now?

Nancy ran 673.4 yards and Maria ran 453.912 yards. How much farther did Nancy run than Maria?

## Divisions with decimals

## TAKE the CHALLENGE

## Read and answer the questions.

Laura needs to make 8 cookie jars. She has 12.76 kg of cookies. How much will each jar have? Explain what you did to find the answer.


To divide with decimals, you can ignore the decimal point at the beginning. Then put it in the same spot as the dividend (the number being divided).

When both numbers are decimals, you have to move the decimal point from the divisor to the right to make it a whole number and move the point in the dividend the same number of places you moved the decimal point in the divisor.
6.25


$-952$
1618

- 1428

1904
$\begin{array}{r}-1904 \\ \hline 0\end{array}$

67

Answer the following divisions．


Colour to match the divisions with the answers．


## Pajor You're up!

## Read and answer the questions.

a) Andrew weighs 42.5 kilograms and his younger brother weighs half his weight. How much does his younger brother weigh?

b) A set of toys costs $\$ 61.75$ and it has 4 toys. How much does each toy cost?

 How many kilometers did he run each day?
 How much water will each bottle have? If each litre costs \$ 5 , how much did she spend?

## The number line

## TAKE the CHALLENGE

Read and answer the question. Then explain the process or steps you followed to find the answer.

Richard has a collection of 114 comic cards. He has decided to share them evenly among his 8 friends at school, but he wants to keep 10 cards because they are his favourite. How many cards will each friend get?

Read and complete the definition using the words in the box.
to also at between on and

- What is a number line?

It is a line $\qquad$ which numbers are placed intervals. It is useful $\qquad$ A... illustrate simple numerical operations like addition subtraction. It can be used to show relations $\qquad$ numbers.


One important characteristic of a number line is that you can use positive and negative numbers: positive numbers are placed at the right side and the negative ones at the left.

Look and mark whole numbers on the following number line.
9/-9


When you write numbers down on a number line，it becomes easier to identify and explain which numbers are bigger or smaller．


## Look and write math sentences． <br> Look and wite math sentences．



2 is smaller than 5.

Read and mark the information on the number line．Then answer the questions and complete the math sentences．

At recess some kids were talking about the money they had．Maria had \＄5， Mark owed \＄7，Joshua had \＄ 7 and Rosa owed \＄ 9.


Which kid was the richest？ $\qquad$
Who is the poorest？

## Look, read and illustrate. Then write.

- What does absolute value mean?

It is the distance between a number and zero.

" 4 " is 4 away from zero, but "-4" is also 4 away from zero. So the absolute value of 4 is 4 , and the absolute value of -4 is also 4.
You can also write it as:

a) $7 \mid=7$

$\qquad$
$\qquad$
$\qquad$
b) $|=\ldots .|-6|=\ldots .$.

$\qquad$
$\qquad$
$\qquad$

## Pana You're up!

## Read and put the information on the number line. Then answer the questions.

Theresa has to practise her singing because she is going to sing in the school summer festival. This morning, she practised for 30 minutes. After school she practised 40 more minutes. In the evening, she practised for 30 minutes and, before bed, she practised for 20 more minutes.


- How many minutes did she practise today?
- How many hours do the minutes make?

Robert loves Music. He has a huge collection of Rock Cds, Last month, he had 70 Cds. Two weeks ago he got 4 more Cds. Last week he got 5 more Cds and yesterday he got 3 more Cds.

- How many Cas does Robert have now?


Mrs. Lin is a PE teacher. She likes to play with her students at recess. Today she had 45 tennis balls to play with. When recess time was over, the kids collected the balls and Mrs. Lin noticed that 17 balls had disappeared. After a few minutes, Mrs Lin found 3 balls at the playground and 5 balls behind a tree.

- How many tennis balls does Mrs. Lin have left?



## Inverse operations

TAKE тне CHALLENGE

Look, read and answer.
Tina needs to complete the next activity.
Help her find the missing numbers.


Explain what you did to find the answer.

Read and find the answer to the operations below.
Addition and subtraction are inverse operations.
Start with 7, and then add 3 and you will get 10. Now subtract 3 and you will get 7 again

## Multiplication and division are inverse

operations.
Start with 6, multiply by 2 and you will get 12. Now divide by 2 and you will get 6 again.

a) 18 $20=38$
b) $34 \square 6=20 \quad 4$
c) $85 \square 5=17$
d) $63 \square 9=54$

Colour the stars to match the answers with the correct operations.

a) $45 \div 9=5$
f) $\square-9=49$
b) $\square-33=12$
g) $83 \div \square=4$ 1. 5
c) $60 \times \square=180$
h) $\square+24=117$
d) $63+\square=107$
i) $\square \times 11=7 \quad 92$
e) $12 \times \square=72$
j) $\square \div 7=102$

75

## Write two math operations that equal the numbers given.




$$
\text { = } 81
$$



## Read and answer the question.

Sheila and Arthur went to the market to shop for the things they needed for a party, They bought 9 bottles of soda and 7 cartons of juice. They total amount they paid was $\$ 53$. Each bottle of soda costs $\$ 2$. How much does a carton of juice cost?

Explain what you did to find the answer $\qquad$
$\qquad$
$\qquad$

Use the words to label the operations.
divisor
quotient


420

dividend

$20 \div 4$ 5

Transform the division above into a multiplication using the same numbers.
Then talk to a friend about how the numbers were moved.


$\square \quad . .$. $\qquad$

Use the words to label the operations.
Factor
Product
Factor
Multiplicand


6
X
8
$=$
4
8

Transform the multiplication you just labeled into a division using the same numbers. Then talk to a friend about how the numbers were moved.

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$\qquad$
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$\qquad$
Can you use division elements to solve multiplication problems?
Of course, actually, multiplication and division are closely related - it means they are linked.
The definition of division is "calculating how many times one number goes into another."

Solve these operations. Then transform them into multiplications.

a) $24 \div 6=\square$
b) $18 \div 9=\square$
c) $10 \div 5=$ $\square$
a)

$\square$
$\square$ b)
$x$

c)

$\square$

Look and work out the multiplications. Then transform them into divisions.
c) $5 \times \square=40$
d)


Division

$\square \div \square=\square$
$\square$
$\square \div \square=\square$

## Word problems

## Read and write the information.

Cindy wants to buy some peaches because some of her friends are visiting her next Saturday. She is planning to share the peaches equally among her friends. She has got enough money to buy 20 peaches. Cindy has got 4 friends and wants to know how many peaches she can give to each friend.

- Division



## - Multiplication



| Number of timesnumber of equals/is <br> peaches <br> friends <br> each kid <br> may get |
| :---: |$\quad$| so the peaches will be |
| :---: |
| shared equally. |

Elena went to the market and bought some candy for her kids. She is going to give each kid the same amount of candy, Elena has got 3 kids and bought 21 candies for them.

- Division



## - Multiplication

$\square$
Number of
times
number of
equals / is $\qquad$ so the $\qquad$ will be each kid may get

## Painic You're up!

## Read and answer the questions.

- Note: If you get a number left, write " ... , remainder 1."

Ex.

## 9 divided by 4 is 2 , remainder 1.

$4 \longdiv { 9 }$

## Remainder

Lila has 28 cookies. She wants to put the same number of cookies on 3 plates How many total cookies are on each plate?

| Division |  |  |  |  |  |  |  |  |  |
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Carol has 48 cupcakes. He needs to divide them among 5 people.
How many cupcakes should each person get?


| Multiplication |  |  |  |  |  |  |  |  |  |
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Morgan has 83 oranges that must be put away in boxes. She has 9 boxes.
How many oranges must go in each box?

| Division |  |  |  |  |  |  |  |  |  |
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| Multiplication |  |  |  |  |  |  |  |  |  |
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