

Warm-Up From Grade 5

Sept. 5

Write the following numbers in standard form.

A) eight hundred thirty-four

834



B) three thousand six hundred four

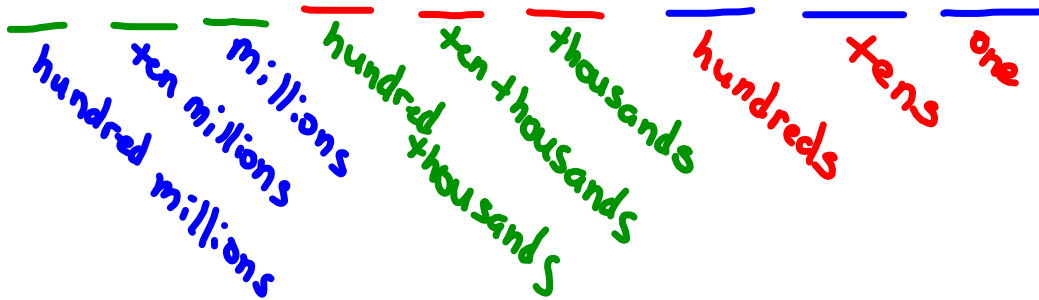
3604

C) forty-eight thousand, fifty-nine

48059

D) one hundred two thousand, thirty

102 030



## Problem of the week



John has a farm with cows and ducks. In all, he has 8 animals and 20 paws. How many cows does he have? How many ducks does he have?

feet  
↓

Farm → Cows → Ducks

8 animals

20 feet

How many cows?  
How many ducks?

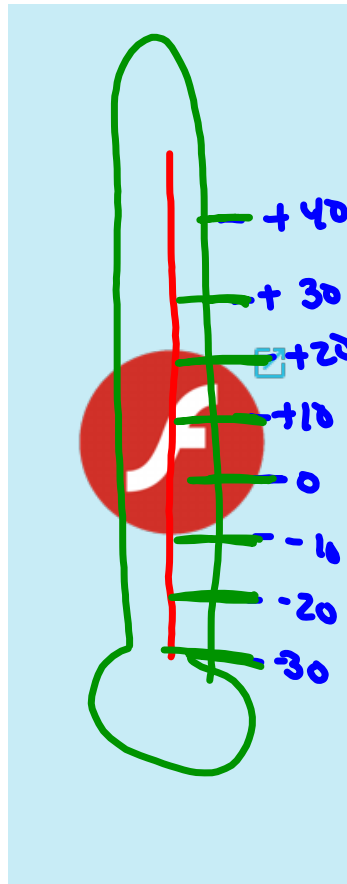


What is this?

A thermometer

What is it used for?

Measure the air temperature!



What is the highest temperature?

+40°C

What is the lowest temperature?

-30°C



7 under par



+1200m

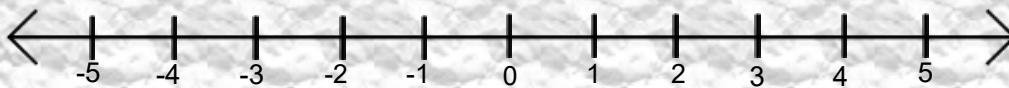
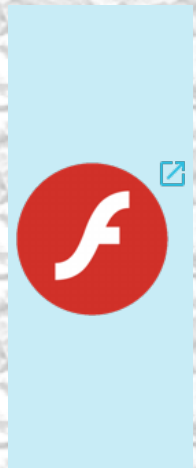


-5°C

# Introduction to Integers

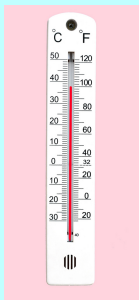


+\$5000



# What is an integer?

## Chapter 1 Lesson 8



Think about temperature...

Temperature is measured in degree celsius ( $^{\circ}\text{C}$ )

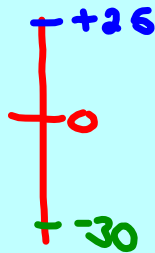
Water freezes at  $0^{\circ}\text{C}$



A summer's day may have a temperature of  $25^{\circ}\text{C}$  above  $0^{\circ}\text{C}$ .



A winter's day may be  $30^{\circ}\text{C}$  below  $0^{\circ}\text{C}$ .

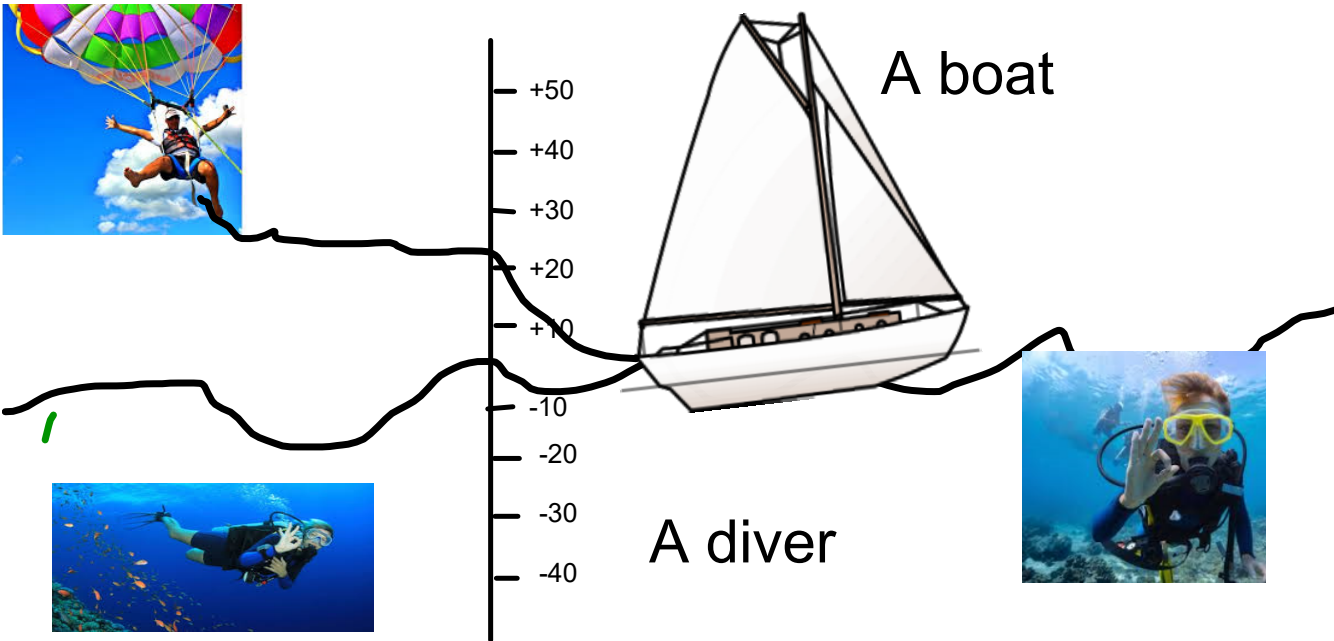


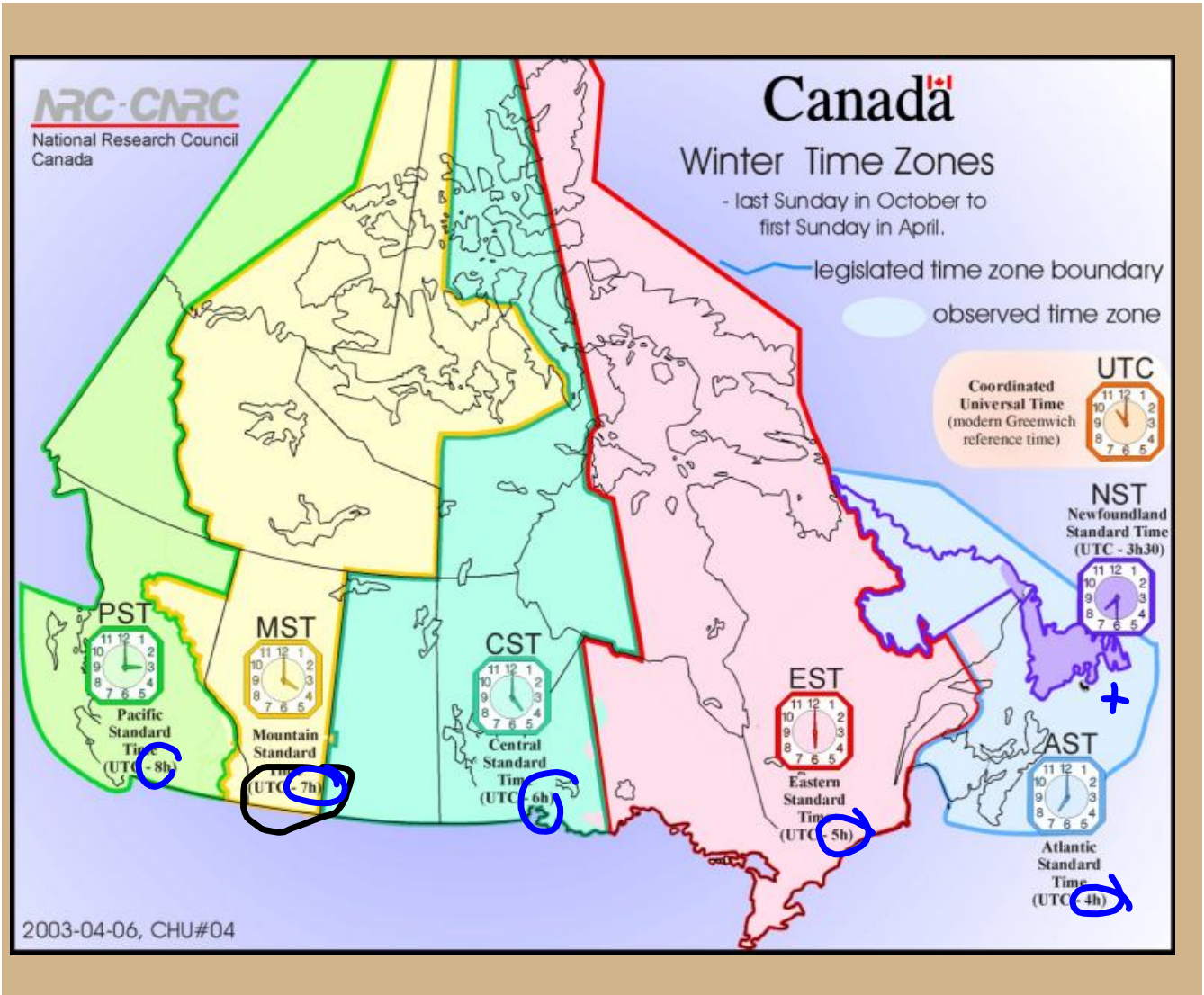
A temperature greater than  $0^{\circ}\text{C}$  is positive

We write  $25^{\circ}\text{C}$  and say twenty-five degree Celsius

A temperature less than  $0^{\circ}\text{C}$  is negative

We write  $-30^{\circ}\text{C}$  and say minus thirty degrees Celsius





## Unit 2 Numbers

Integers

Key terms



**Negatives** (-)

Lost/lose  
withdraw  
reduce  
go down  
below  
back  
spend

**SOME Key words****Positives** (+)

Gain  
deposit  
increase  
go **UP**  
above  
forward  
get paid

c  
o  
p  
y

copy

Use (+) or (-) to represent the situation

a) 10 degrees below zero $-10$ b) parking level is 4 levels below ground $-4$ c) 15 meters above sea level $+15$ 

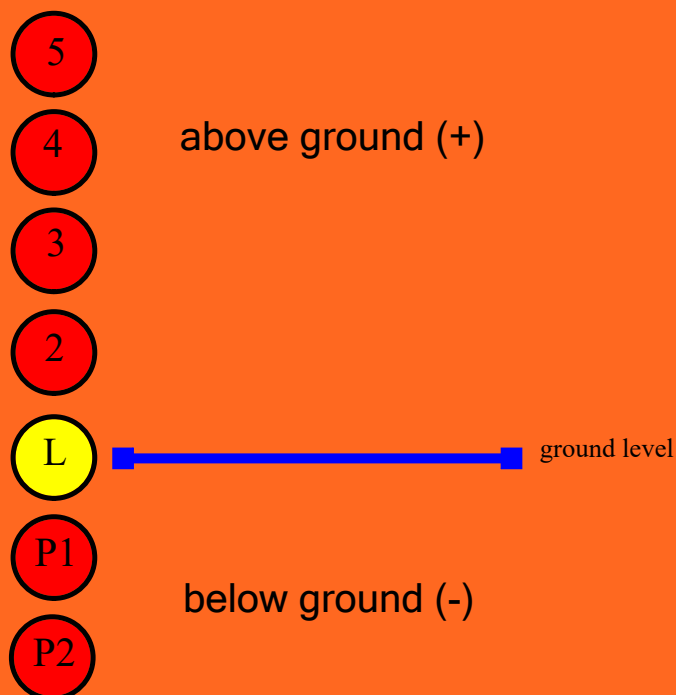
Now write a situation for the number -30

Scuba diver is 30 m below sea level

 $\rightarrow$  lost \$30 $\rightarrow$  Went back 30 steps

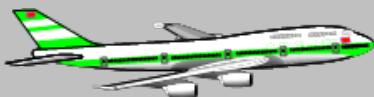
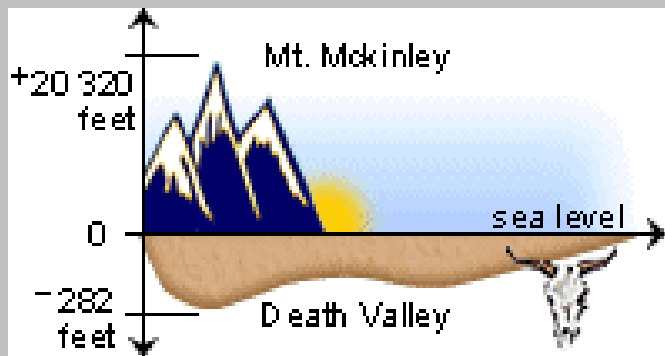
## Ways to think about integers in real life:

Floors in a building



# Ways to think about integers in real life:

## Altitude



airplane above sea level (+)



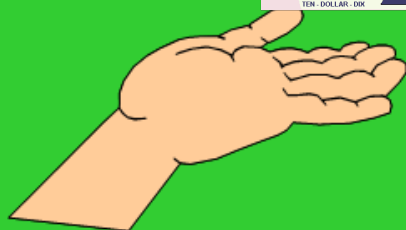
submarine below sea level (-)

## Ways to think about integers in real life:



banking

depositing money (+)



paying money (-)

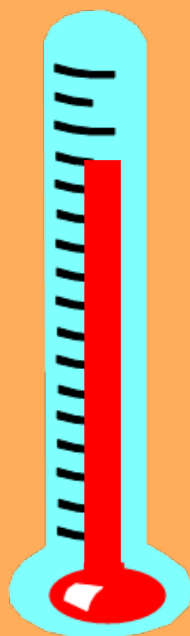
## Ways to think about integers in real life:

### Thermometer

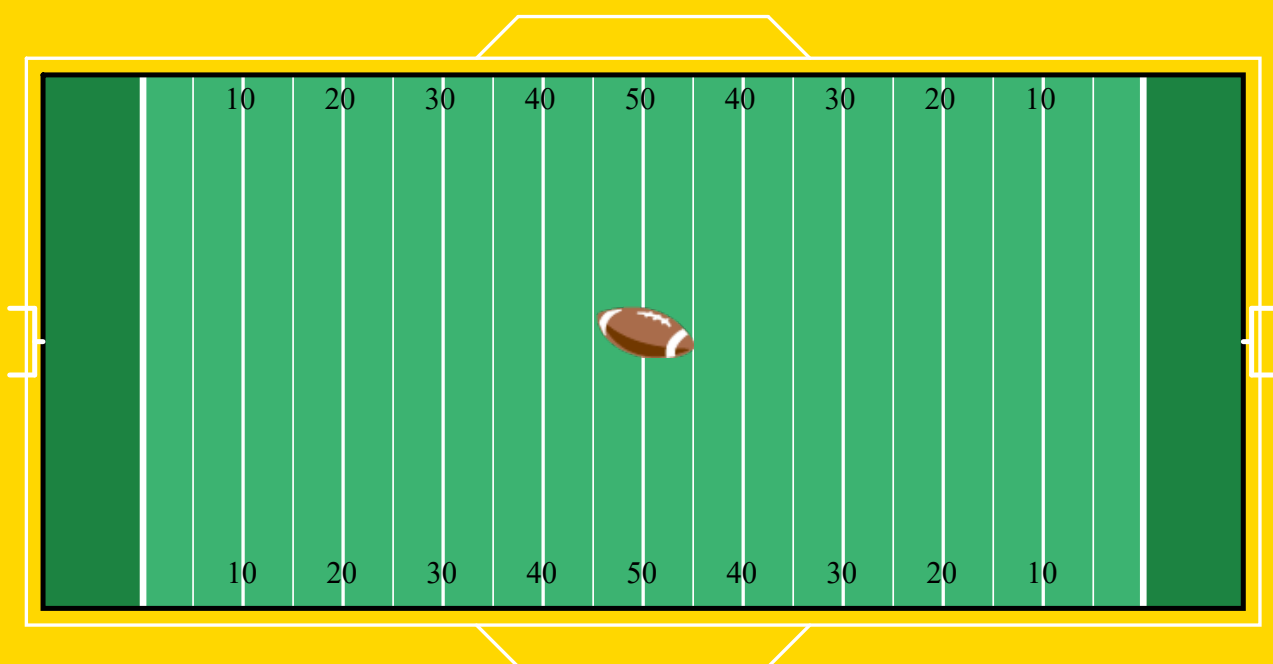
warmer temperature (+)

zero  $0^{\circ}\text{C}$

colder temperature (-)



# Ways to think about integers in real life:



Football

Gaining yards (+)    Losing yards (-)

Remember

copy

Whole numbers are the numbers you count with 0,1,2,3,4,....

Integers are positive or negative whole numbers

...-3, -2, -1, 0, +1, +2, +3 ...

ZERO has no sign (used for comparing)

In this unit you MUST include the signs

Text book will use tiles to represent integers when we draw

 yellow is +1

 red is -1

 shaded +

 unshaded -

Let's Try

Model -3

Model +5



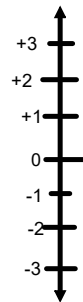
- We can show integers on a horizontal or vertical number line.

You have used horizontal number lines with whole numbers. We extend the number line to the left of 0 to show *negative integers*.



The arrow on the number line represents  $-3$ .  $-3$  is a negative integer. We say, "Negative 3."

A thermometer is a vertical number line.



**Integers can be displayed on a vertical or horizontal number line.**  
**Horizontal Number line**

