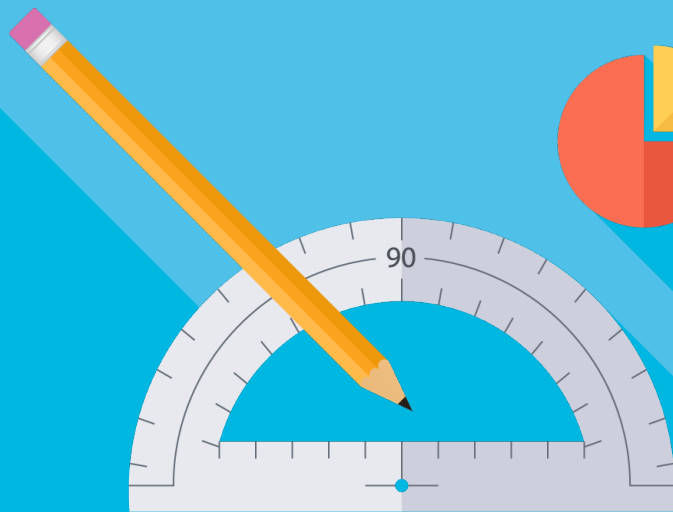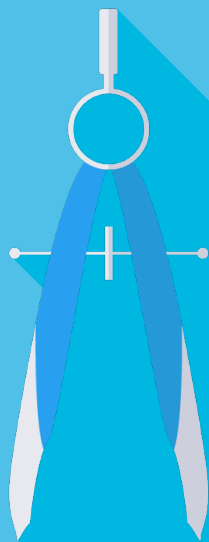# Thursday Week 2
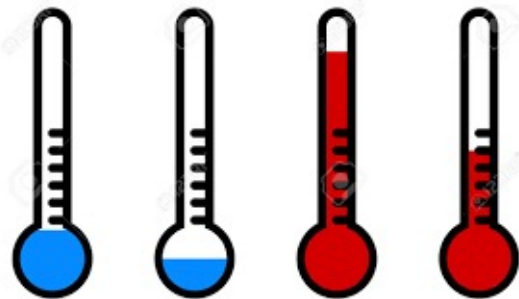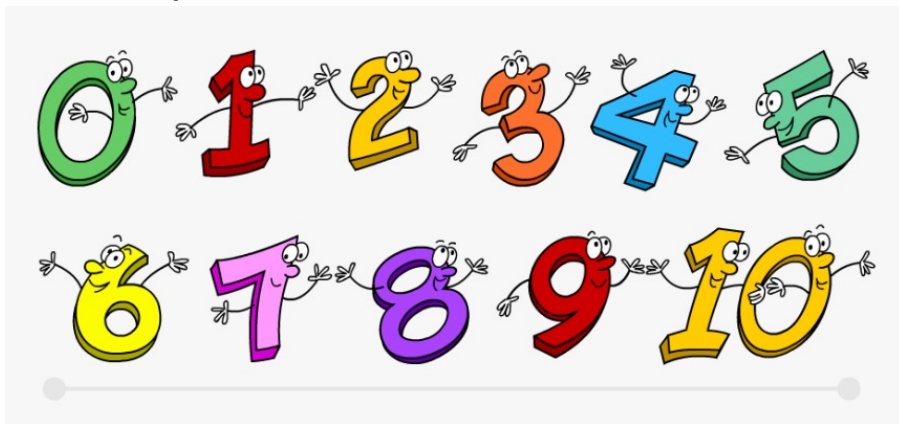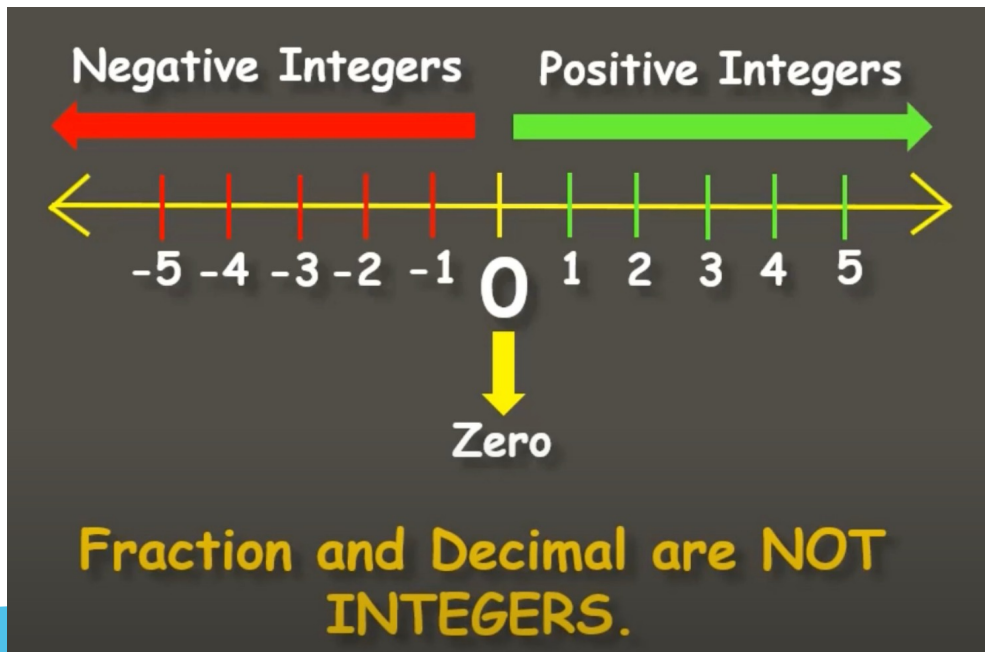## Maths Task

Integers

WALT:

❖ Investigate everyday situations that use integers; locate and represent these numbers on a number line.

❖ Interpret integers in everyday contexts, e.g., temperature

Let's revise! What are Integers?

Integers are a set of counting numbers (positive and negative), along with zero, that are written without a fractional component.

Let's revise! Negative numbers

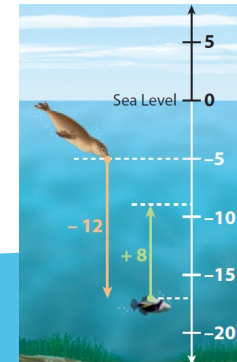Negative numbers are used to describe things that are below zero, this could be:

Temperature
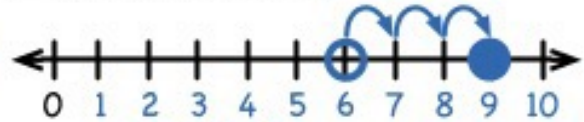
Finance and banking

Underwater depth (below sea level)

Let's revise!
Adding and Subtracting Integers

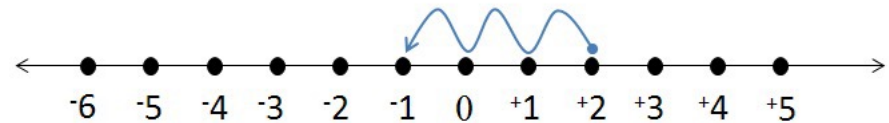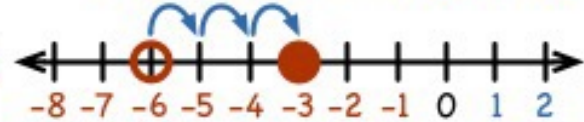When we move to the **right** of the number line numbers get **larger** and when we move to the **left** of the number line the numbers get **smaller.**

Find the Sum:

$6+3=9$

0 1 2 3 4 5 6 7 8 9 10
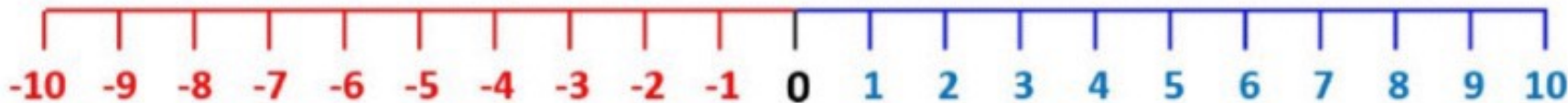
$-6+3=-3$

-8 -7 -6 -5 -4 -3 -2 -1 0 1 2

-6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5

$2-3=-1$

Your turn!

Use the number line to complete these questions.

$3 + 4 =$

$- 3 + 5 =$

$- 6 - 4 =$

$- 10 + 11 =$

$4 - 8 =$

$9 - 17 =$

Answers

Use the number line to complete these questions.
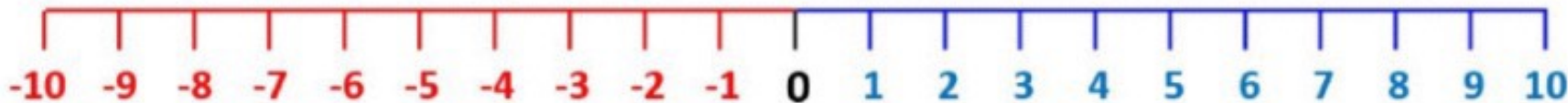
3 + 4 = **7**

- 3 + 5 = **2**

- 6 - 4 = **- 10**

- 10 + 11 = **1**

4 - 8 = **- 4**

9 - 17 = **- 8**

Let's revise! Temperature

8 There are many places around the world and in Australia where temperatures below zero exist. Look carefully at the thermometers below and record the temperatures.

a	b	c	d	e	f	g
°C	°C	°C	°C	°C	°C	°C
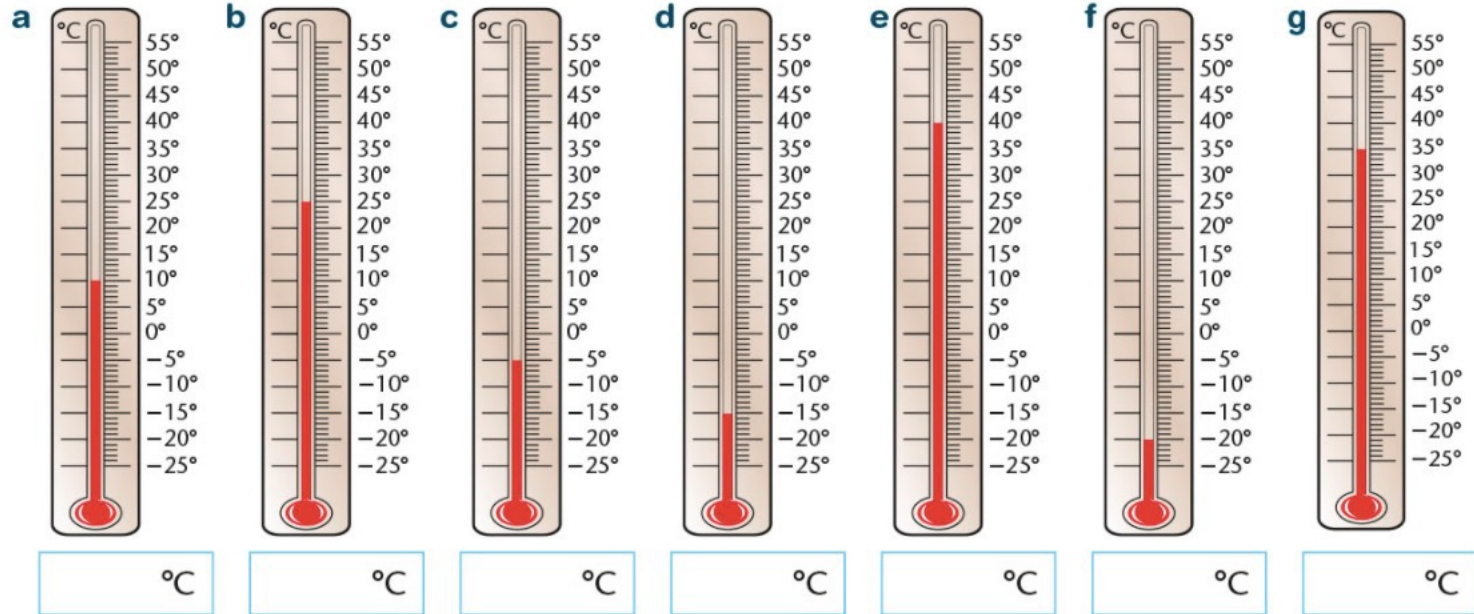
Your turn!
Integers in temperature

Put these temperatures in order, the coldest first.

2˚C, -8˚C, -1˚C, -6˚C, -4˚C

_____

6˚C, 10˚C, -15˚C, -11˚C, 14˚C

_____

16˚C, 18˚C, -23˚C, -25˚C, -13˚C, 12˚C, 20˚C

_____

Answers
Integers in temperature

Put these temperatures in order, the coldest first.

2˚C, -8˚C, -1˚C, -6˚C, -4˚C

- 8˚C, - 6˚C, - 4˚C , - 1˚C, 2˚C

6˚C, 10˚C, -15˚C, -11˚C, 14˚C

- 15˚C, - 11˚C, 6˚C, 10˚C , 14˚C

16˚C, 18˚C, -23˚C, -25˚C, -13˚C, 12˚C, 20˚C

- 25˚C, - 23˚C, - 13˚C, 12˚C, 16˚C, 18˚C, 20˚C

Integers
Climates around the World

Look at the temperatures for these cities. Write the name of the warmest place in the box.

New York	Moscow	Warmest
-3°C	-1°C	Moscow

Minsk	St. Petersburg	Warmest
-15°C	-17°C	Minsk

Your turn!
Climates around the World

1. The temperature in England rises by 16 degrees from $-4°C$ during the day. What is the new temperature?

2. The temperature in New Zealand falls from $11°C$ to $-2°C$ at night. How many degrees does the temperature fall?

3. The temperature in Russia was $-5°C$. It falls by 6 degrees overnight. What is the temperature now?

Answers
Climates around the World

1. The temperature in England rises by 16 degrees from $-4°C$ during the day. What is the new temperature? **12°C**

2. The temperature in New Zealand falls from $11°C$ to $-2°C$ at night. How many degrees does the temperature fall? **13°C**

3. The temperature in Russia was $-5°C$. It falls by 6 degrees overnight. What is the temperature now? **$-11°C$**

BLUE	RED	GREEN
1. Complete the following questions: a) - 2 + 3 = b) - 5 + 5 = c) - 9 + 4 = d) 4 - 6 = e) - 2 - 8 =	1. Complete the following questions: a) - 2 + 6 = b) - 8 + 12 = c) - 14 + 17 = d) 4 - 9 = e) - 13 - 7 =	1. Complete the following questions: a) - 13 + 11 = b) - 14 + 18 = c) - 25 + 32 = d) 60 – 117 = e) 9 – 3 – 3 – 3 = f) - 19 – 25 =
2. Find the lowest temperature in each of these questions a) - 4˚C or 2˚C b) - 8˚C or 8˚C c) - 5˚C or - 6˚C	2. Find the lowest temperature in each of these questions a) - 4˚C or – 2˚C b) - 8˚C or 8˚C c) - 16˚C or- 17˚C d) - 2˚C or – 9˚C	2. Answer the following questions a) What integer must be added to -53 so that the sum is 28? b) – 78 > 23? True or false? c) 16 – (-6) = d) (-20) + 46 = e) Order these integers from smallest to largest 43, -118, 102, -19, 3, - 15
3. Answer the following questions: **a)** The temperature in Russia at 6pm is 8°C, at 6am the next morning the temperature has dropped to -7°C. By how many degrees has the temperature fallen? **b)** Mrs Jones buys a pair of skis and pays for them with her debit card. The skis cost $85 and she had $50 in her account. What is her new balance?	3. Answer the following questions: **a)** The elevator in a skyscraper travels from floor 19 to the underground carpark on level -4. How many floors has it descended? **b)** The temperature in New York is 4°C when the Christmas lights are switched on. By 9am the next day, the temperature has fallen by 11°C. What is the new temperature?	3. Answer the following questions: **a)** In a quiz, a team scores 2 points for each correct answer and loses 5 points for each wrong answer. From the start of a game, a team gets 4 questions in a row correct, but then gets two questions wrong. How many points do they have? **b)** Mr Davies overspends during the month of September and goes $247 overdrawn. How much does he have left after his October wages of $847 are paid into his account?
4. Choose a holiday destination. Describe the temperature at different times of the year. Create a graph to show the change in temperature over time throughout the year.	4. Choose a holiday destination. Describe the temperature at different times of the year. Create a graph to show the change in temperature over time throughout the year.	4. Choose a holiday destination. Describe the temperature at different times of the year. Create a graph to show the change in temperature over time throughout the year.

Extension Task
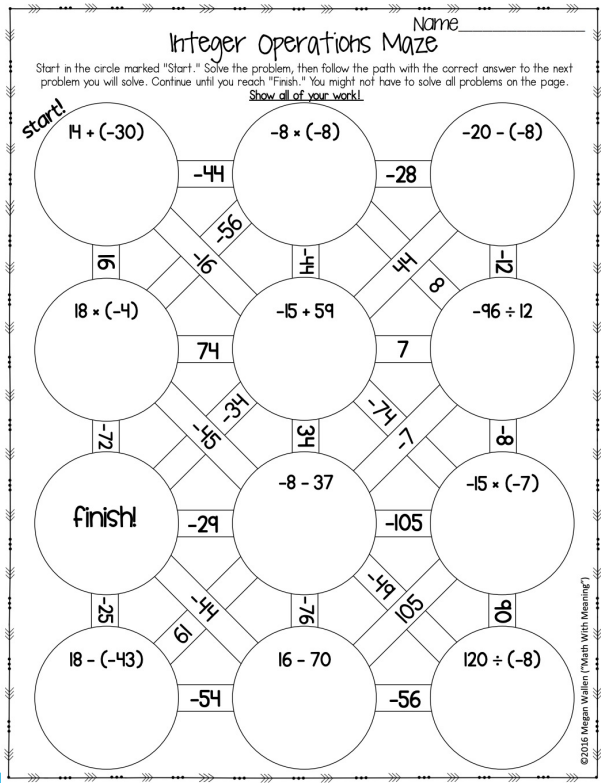
Complete the
'Math Extension Task Integer Operations Maze'
worksheet from the School website.

Additional Task

Draw a number line from -10 to 10 and **write 3 questions** in which you can demonstrate on your number line. See below for an example.

$$1 - 3 = ?$$