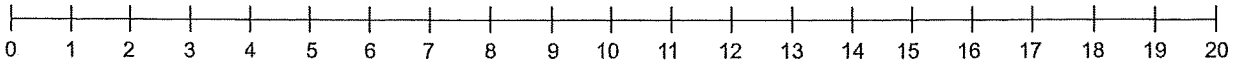
NS7-92 Subtraction Using Distance Apart

1. How many units apart are the two whole numbers?



a) 2 and 5 are _____ units apart.

b) 9 and 14 are _____ units apart.

c) 15 and 17 are _____ units apart.

d) 7 and 13 are _____ units apart.

2. Write each statement in Question 1 as a subtraction sentence. Subtract the smaller number from the larger number.

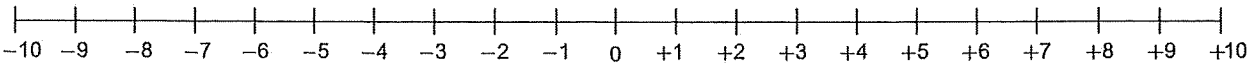
a) *5 − 2 = 3*

b) _____

c) _____

d) _____

3. How many units apart are the two integers?



a) −5 and 2 are _____ units apart.

b) −3 and 3 are _____ units apart.

c) −8 and −4 are _____ units apart.

d) −6 and 2 are _____ units apart.

4. Write each statement in Question 3 as a subtraction sentence. Subtract the smaller number from the larger number.

a) *2 − (−5) =*

b) _____

c) _____

d) _____

a − b and *b − a* are opposite integers because $a - b + b - a = 0$. So to get *a − b* from *b − a*, just change the sign (from + to − or from − to +).

5. Subtract the smaller integer from the larger integer by using the distance apart. Then subtract the larger integer from the smaller integer by changing the sign.

a) 4 − (−3) = _____
so (−3) − 4 = _____

b) (−2) − (−9) = _____
so (−9) − (−2) = _____

c) 7 − 3 = _____
so 3 − 7 = _____

d) 6 − (−2) = _____
so (−2) − 6 = _____

e) (−7) − (−10) = _____
so (−10) − (−7) = _____

f) 204 − 198 = _____
so 198 − 204 = _____

6. Write **positive** or **negative**.

a) Circle the answers from Question 5 where a smaller integer is subtracted from a larger integer. When you subtract a smaller integer from a larger integer, the answer is _____.

b) Underline the answers from Question 5 where a larger integer is subtracted from a smaller integer. When you subtract a larger integer from a smaller integer, the answer is _____.

7. Decide which integer is larger and then whether the answer is positive or negative. Then subtract by writing the correct sign in the circle and the distance apart in the blank.

a) (−5) − (−3) = (−) 2

b) 9 − (−3) = ◯ ___

c) 5 − 8 = ◯ ___

d) (−6) − (−11) = ◯ ___

e) (−4) − 5 = ◯ ___

f) 12 − 8 = ◯ ___

NS7-94 Word Problems

1. a) A valley is 300 m below sea level and the top of a mountain is 2 000 m above sea level. Brooke says the difference in height is 2 300 m. Veda says the difference in height is 1 700 m. Who is right? Explain.

b) Mount Lamlam on the island of Guam is the tallest mountain in the world from below sea level. Its top is 406 m above sea level. Its feet extend to 10 911 m below sea level. How tall is Mount Lamlam?

2. Arrange the temperatures in order from coldest to hottest.

−19°C 24°C −18°C 0°C 15°C 3°C 21°C

3. If the temperature is −15°C, what will the temperature be if it...

a) increases 20°C? b) increases 15°C? c) increases 5°C? d) decreases 10°C?

4. Which temperature is further from −3°C?

a) −5°C or 5°C b) 7°C or 10°C c) 8°C or −15°C d) 5°C or −10°C

5. Draw a number line from −10 to +10 and mark a number that is...

A 2 less than 0
B 3 less than 4
C 3 greater than −1
D 5 greater than −2
E halfway between +2 and +6
F an equal distance from −8 and −2
G the same distance from 0 as −9
H twice as far from zero as −4

6. Solve the puzzle by placing the same integer in each shape.

a) $\square + \square + \square = -6$

b) $\bigcirc + \bigcirc + \bigcirc = -30$

7. In this square, the integers in each row, column, and two diagonals (these include the centre box) add up to +3.

Fill in the missing integers.

+5		−3
−2		

8. The chart shows the average temperatures in winter and summer for three Canadian cities

Find the range of average temperatures for each city.

City	Average Winter Temp (°C)	Average Summer Temp (°C)	Range
Toronto	−5	20	
Montreal	−10	21	
Vancouver	−3	23	

9. The chart shows the average temperature on 5 planets.

a) Write the temperatures in order from least to greatest.

b) What is the difference between the highest and the lowest average temperature?

c) Which planet has an average temperature 200°C lower than that of Earth?

Earth	+20°C
Venus	+470°C
Saturn	–180°C
Mercury	+120°C
Jupiter	– 50°C

10. When a plane takes off, the temperature on the ground is 10°C. The temperature outside the plane decreases by 5°C for every 1 000 m it climbs above the ground.

a) What is the temperature outside the plane when it is 3 000 m above the ground?

b) What will the temperature outside the plane be when it is 3 400 m above the ground?

11. A glass of water has a temperature of +18°C. When Guled adds an ice cube, the temperature decreases by 1°C. Guled writes (+18) + (–7) to find the temperature after adding 7 ice cubes.

a) How would Guled find the temperature after adding 12 ice cubes?

(+18) + _____ = _____

b) Guled's water has 5 ice cubes and a temperature of +13°C. How would Guled find the temperature after **removing** 3 ice cubes? Calculate the new temperature.

12. If you were to spin the spinner twice and add the two results...

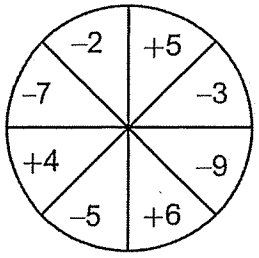
a) what is the highest total you could score? _____

b) what is the lowest total you could score? _____

c) what is the largest possible difference between the two scores?

_____

d) how could you score zero? _____



13. How much did the temperature change in the course of each day?

Monday _____

Tuesday _____

Wednesday _____

Thursday _____

	Daily Low Temp (°C)	Daily High Temp (°C)
Monday	–8	+2
Tuesday	–10	–8
Wednesday	–4	0
Thursday	–17	–5