What Should I Be Able to Do?

LESSON

2.1 **1.** Suppose you have 17 red tiles. How many yellow tiles would you need to model:

a) -12? b) 0?

c) $+20$? d) -17?

How do you know?

2. Write the integer suggested by each of the following situations. Draw yellow or red tiles to model each integer. Explain your choice.

a) The temperature rises 8°C.

b) The price of 1 L of gas falls 5¢.

c) You deposit $12 in your bank account.

d) You take 7 steps backward.

e) The time is 9 s before take-off.

2.2 **3.** What sum does each set of tiles model?

a) 5 red tiles and 2 yellow tiles

b) 6 yellow tiles and 5 red tiles

c) 6 yellow tiles and 7 red tiles

d) 8 yellow tiles and 8 red tiles

4. Represent each sentence with integers, then find each sum.

a) The temperature was -6°C, then rose 4°C.

b) Surinder withdrew $25, then deposited $13.

c) A stock gained $15, then lost $23.

d) A submarine was 250 m below sea level, then ascended 80 m.

5. a) Find 4 pairs of integers that have the sum -5.

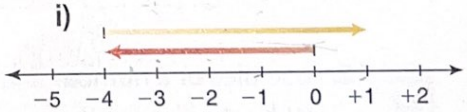
b) Find 4 pairs of integers that have the sum $+4$.

2.3 **6.** The temperature at 6 a.m. is -10°C. During the day, the temperature rises 17°C. What is the new temperature? Write an addition equation to represent this situation. Use a vertical number line to support your answer.

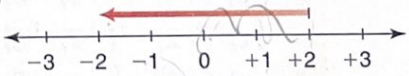
7. a) Write an addition equation modelled by each number line.

b) Describe a situation that each number line could represent.

i)



ii)



2.2 2.4 **8.** Use tiles to add or subtract.

a) $(-1) + (+3)$

b) $(+3) + (-4)$

c) $(-2) - (+3)$

d) $(-1) - (-3)$