

Adding and Subtracting Integers

26/08/24

Integer: A whole positive number, whole negative number or zero.

- It is written as capital Z

$$\mathbb{Z} = \{ \dots, -2, -1, 0, 1, 2, \dots \}$$

start of set of numbers up to $-\infty$ up to $+\infty$ end of set of numbers

ADDITION

$$\boxed{+} + \boxed{+}$$

$$(+2) + (+3) = 5$$

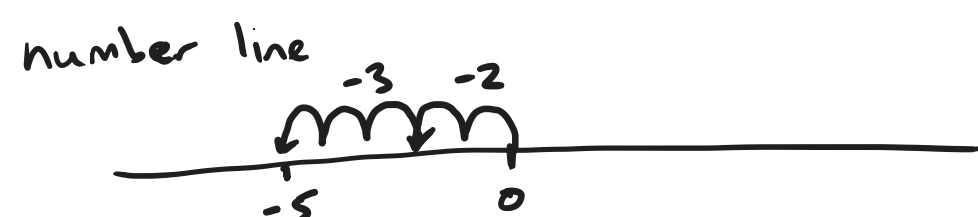
$$\boxed{+} + \boxed{-}$$

$$(+1) + (-1) = 0$$

$$\boxed{-} + \boxed{-}$$

$$(-2) + (-3) = 5 \times$$

$$-5 \checkmark$$



$$(-4) + (-1) = -5$$

$$(-11) + (-6) = -17$$

SUBTRACTION

$$\boxed{+} - \boxed{+}$$

$$(+2) - (+3) = -1$$

$$\boxed{+} - \boxed{-}$$

$$(+10) - (-8) = 18 \checkmark \checkmark \checkmark$$

$$\boxed{-} - \boxed{-}$$

$$(-4) - (-3) = 1 \times$$

$$-4 + 3 = -1 \checkmark \checkmark$$

Practice:

$$17 - -9 = 26 \checkmark$$

$$-3 + -5 = -8 \checkmark$$

$$18 + -6 = 12 \checkmark$$

$$-3 - 6 = -9 \checkmark$$

$$-3 - -7 = 4 \checkmark$$

$$-9 - +3 = -12 \checkmark$$

$$27 + -5 - -3 = 19 ?$$

$$22 - -3 = 25 \checkmark$$

$$1 - 2 + 10 - -11 + +12 - 2 + 44$$

$$= 74$$

a.

$\oplus$	-8	+25	-18	32
-6	$-8 + -6 = -14$	19	-24	26
-13				
-16		9	-34	
-19			37?	

$$+25 + -6 = 19$$

$$-18 + -6 = -24$$

$$32 + -6 = 26$$

$$\rightarrow -37 \checkmark$$

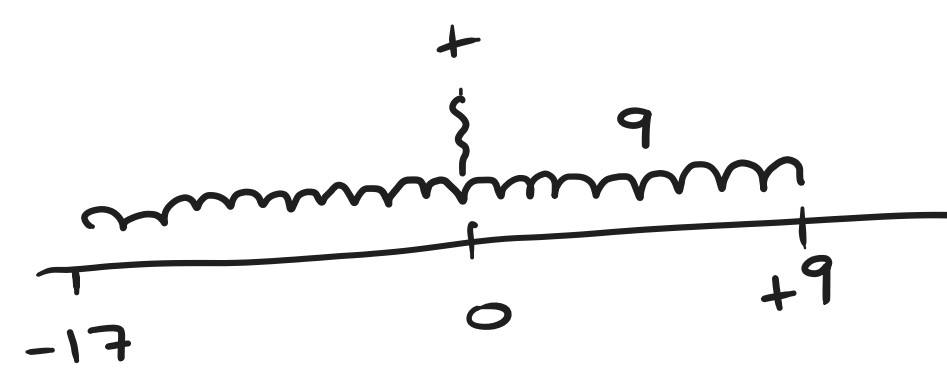
d.

$\ominus$	$\oplus 9$			42
$\times$	-17			16
-14	23		-1	56
		23		
+23	-14	-2		19

$$+26 \rightarrow$$

$$+9 - x = -17$$

if $x = 8$, $9 - 8 = 1$
 if $x = -8$, $9 - (-8) = 17$



if $x = 26$ -
 $9 - 26 = -17 \checkmark \checkmark \checkmark \checkmark$

$$9 - 14 = -5$$

$$9 + 14 = 23$$

$$-9 + 14 = 5$$

$$+9 - (-14) = 23$$

$$+9 - (+23) = -14$$

$$42 - (+26) = 16$$

$$42 - (-14) = 56$$

$$42 - 23 = 19$$