

SUBTRACTING Negative Numbers

Note: There is NO commutative property
for subtraction:

$$a - b \neq b - a$$

↳ example 1:

$$\begin{aligned} \text{a)} \quad 5 - 3 &= \\ 3 - 5 &= \end{aligned}$$

$$\begin{aligned} \text{b)} \quad 7 - 4 &= \\ 4 - 7 &= \end{aligned}$$

$$\begin{aligned} \text{c)} \quad 9 - 4 &= \\ 4 - 9 &= \end{aligned}$$

$$\begin{aligned} \text{d)} \quad 8 - 0 &= \\ 0 - 8 &= \end{aligned}$$

$$\begin{aligned} \text{e)} \quad 64 - 3 &= \\ 3 - 64 &= \end{aligned}$$

$$\begin{aligned} \text{f)} \quad 87 - 5 &= \\ 5 - 87 &= \end{aligned}$$

Notice that if you switch the numbers in
these subtraction problems, you end
up with the opposite answer.

Conclusion:

$$a - b = -(b - a)$$

We can use this result to show that subtracting a negative number changes the operation to addition.

$$a - b = -(b - a)$$

↳ example 2: $5 - (-1) =$

therefore: $5 - (-1) =$

↳ example 3: $4 - (-6) =$

therefore: $4 - (-6) =$

↳ example 4: $0 - (-3) =$

therefore: $0 - (-3) =$

Summary: Subtracting a negative number is the same as adding its opposite

↳ example 5:

a) $4 - 5 - 6$

b) $3 + (-2) - (-1) + 5$

↳ example 6:

a) subtract -8 from 9

b) subtract -3 from the sum
of -5 and 7 .

SUBTRACTING NEGATIVE NUMBERS practice problems

1. $4 - (-3) =$

2. $-6 - (-8) =$

3. $3 - 9 - 6 =$

4. $4 + (-1) - (-2) + 6 =$

5. Subtract -3 from 10 .

6. Subtract -2 from the sum of -4 and 9 .