Negative Numbers and Integers Ex 5.4 Q12

Answer :

(i) $-4 + 3 - (-2)$

$= -4 + (3 + 2)$

$= -4 + 5$

$= 1$

(ii) $-(-2) + (-3) - (-2)$

$= (2 - 3) + 2$

$= -1 + 2$

$= 1$

(iii) $-6 + (-5) - (-2)$

$= -6 + (-5 + 2)$

$= -6 - 3$

$= -9$

(iv) $-(-5) + 6 - (-2)$

$= 5 + (6 + 2)$

$= 5 + 8$

$= 13$

Negative Numbers and Integers Ex 5.4 Q13

Answer :

a and b are integers such that a is the predecessor of b, that is, $a = b - 1$.

$\therefore (a - b)$

$= (b - 1) - b$

$= b - 1 - b$

$= -1$

Negative Numbers and Integers Ex 5.4 Q14

Answer :

a and b are two integers such that a is the successor of b, that is, $a = b + 1$.

$\therefore a - b$

$= b + 1 - b$

$= 1$

Negative Numbers and Integers Ex 5.4 Q15

Answer :

(i) False; It should be $-13 < -8 + 2 = -6$.
(ii) True; $-4 - 2 = -6 < 2$
(iii) True; For example: $-(-2) = 2$
(iv) True; $a > b$
(v) True; For example: $3 - 2 = 1$, which is a integer.
(vi) False; For example: $-2 + 2 = 0$. Here, 2 is the additive inverse of -2; it is positive.
(vii) True
(viii) True

Negative Numbers and Integers Ex 5.4 Q16

Answer :

(i) $-7 + 7 = 0$ ($-a$ and a are the negative and additive inverses of each other.)
(ii) $29 + (-29) = 0$ ($-a$ and a are the negative and additive inverses of each other.)
(iii) $132 + (-132) = 0$ ($-a$ and a are the negative and additive inverses of each other.)
(iv) $-14 + 36 = 22$
(v) $-1256 + 514 = -742$
(vi) $-3305 - 1234 = -4539$

********** END **********