Exercise 9A

(viii) $\frac{1}{2}x + 7 = 11$

Since, R.H.S. is a natural number so L.H.S. must be a natural number Thus, we will try values if x which are multiples of 'x'

x	L.H.S.	R.H.S.	Is L.H.S. = R.H.S.?
2	2/2 + 7 = 8	11	No
4	4/2 + 7 = 9	11	No
6	6/2 + 7 = 10	11	No
8	8/2 + 7 = 11	11	Yes

∴ x = 8

(ix) $2y + 4 = 3y$

We try several values of y until we get the L.H.S. equal to the R.H.S.

y	L.H.S.	R.H.S.	Is L.H.S. = R.H.S.?
1	2 × 1 + 4 = 6	3 × 1 = 3	No
2	2 × 2 + 4 = 8	3 × 2 = 6	No
3	2 × 3 + 4 = 10	3 × 3 = 9	No
4	2 × 4 + 4 = 12	3 × 4 = 12	Yes

∴ y = 4

(x) $z - 3 = 2z - 5$

We try several values of z till we get the L.H.S. equal to the R.H.S.

z	L.H.S.	R.H.S.	Is L.H.S. = R.H.S.?
1	1 − 3 = −2	2 × 1 − 5 = −3	No
2	2 − 3 = −1	2 × 2 − 5 = −1	Yes

∴ z = 2

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