Solving Two-Step Equations

(a)

Solve $3x + 1 = 16$

$x = 5$

(b)

Solve $5x + 4 = 19$

$x = 3$

(c)

Solve $2x - 3 = 11$

$x = 7$

(d)

Solve $9x - 2 = 16$

$x = 2$

(e)

Solve $5 + 2x = 17$

$x = 6$

(f)

Solve $11 + 3x = 17$

$x = 2$

(g)

Solve $2x + 5 = 1$

$x = -2$

(h)

Solve $7 + 4x = 3$

$x = -1$

(i)

Solve $5 - 2x = 13$

$x = -4$

(j)

Solve $4x - 1 = 1$

$x = \frac{1}{2}$

(k)

Ibby is solving the equation

$2x - 6 = 8$

Here is his working:

$2x - 6 = 8$

$2x = 8 - 6$

$2x = 2$

$x = \frac{2}{2}$

$x = 1$

What mistake has he made?

Ibby should have added 8 and 6 rather than subtracted, so $2x = 14$, and $x = 7$

(l)

Esther is solving the equation

$7 - 3x = 13$

Here is her working:

$7 - 3x = 13$

$3x = 13 - 7$

$3x = 6$

$x = \frac{6}{3}$

$x = 2$

What mistake has she made?

Esther's 2nd line should read $-3x = 13 - 7$

So, the answer is $x = -2$

(m)

Solve $1 - 5x = 21$

$x = -4$

(n)

Solve $3 + 10x = 5$

$x = \frac{1}{5}$