

NZC Mathematics Level 4 – Number and Algebra – Equations and Expressions
Form and Solve Simple Linear Equations

a. Solve for x

1. $3x = 6$ ✓ $x = 6 \div 3$ $x = 2$
2. $15x = 30$ ✓ $x = 30 \div 15$ $x = 2$
3. $2 + x = 9$ ✓ $x = 9 - 2$ $x = 7$
4. $8 - x = 6$ ✓ $-x = 6 - 8$ $-x = -2$ $x = 2$
5. $2x + 6 = 16$ $2x = 10$ $x = 5$
6. $8 = x - 3$ $x - 3 = 8$ $x = 8 + 3$ $x = 11$
7. $8 = x + 9$ ✓ $x = 8 - 9$ $x = -1$
8. $12 = 2x + 2$ $2x = 10$ $x = 5$
9. $20x + 3 = 43$ $20x = 40$ $x = 2$

$x + 9 = 8$

b. Form linear equations from these word problems, then solve the equation, give an answer in context.

1. There are cows in a field, they have 40 legs altogether, each cow has four legs. How many cows are there in the field?

$4x = 40$ ✓ $x = 10$ ✓
There are 10 cows.

2. Polly has \$10 and spends some of her money, when she gets home she has \$4 left. How much did Polly spend?

$10 - x = 4$
 $+ x = +6$
Polly spent \$6

3. There are 33 desks in my classroom; normally one student sits at each desk. Today seven desks do not have a student. How many students are in my class today?

$33 - 7 = x$
 $x = 26$

26 students are present!

