

Algebra: Quadratics, Rearranging Formulae and Identities

Non-Calculator 20 minute test 1

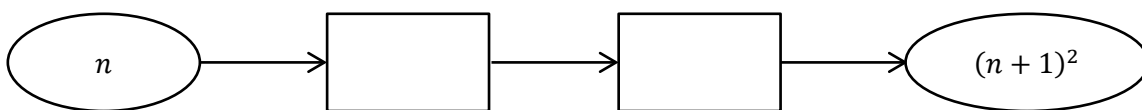
Answer all questions.

1 Simplify fully $\frac{15xy^4}{3x^2y^2}$

[2 marks]

Answer _____

2 (a) Here is a number machine



Write an operation in each box to make the number machine work.

[2 marks]

2 (b) Here is another number machine



Write an operation in each box to make the number machine work.

[1 mark]

3 Simplify $x(x + 10) + 2(x - 8)$

[2 marks]

Answer _____

4 Factorise $x^2 + x - 12$

[2 marks]

Answer _____

5 Simplify $(\sqrt{8} + 4)(\sqrt{8} - 4)$

[2 marks]

Answer _____

6 Given $y = f(x)$ and $f(x) = x^2 - 1$, find y when $x = 10$

[2 marks]

Answer _____

7 Rearrange $P + 2x = 5(x - 2)$ to make x the subject.

[3 marks]

Answer _____

8 Show that $(3x + 5)(x - 1) - 3 \equiv 3x^2 + 2x - 8$

[2 marks]

Answer _____

9 Factorise $x^2 - 25$

[1 mark]

Answer _____