



Instructor: Dr. R.A.G. Seely

Quiz 1

(version Practice Quiz 1)

### Algebra & Functions (Maths 201–016)

1. Evaluate the following expressions:

(a)  $19 - |3 - 3^2 \cdot 2|$   
(c)  $\left(\frac{3}{4} \cdot \frac{7}{5}\right) + \left(\frac{1}{5} - \frac{3}{8}\right)$   
(e)  $\frac{(-4)^2 - 6^2 - 5(-6) - 11 \cdot 24^0}{|9 - 7^2|}$

(b)  $[1 - (-23)] \div [(-2) - 4] + (2^2 + 3^0)$   
(d)  $\frac{-45 + 18}{2^2 - 1} \div \left(\frac{1}{3}\right)^2$

2. Solve the following equations.

(a)  $-x + 11x - 11 = 5x + 13$   
(c)  $3x^2 - 12x + 9 = 3(x - 2)(x + 2)$

(b)  $\frac{144x}{25} = \frac{12}{75}$   
(d)  $\frac{22}{12}x - \frac{4}{3} = 2\left(\frac{5}{4}x - \frac{7}{3}\right)$

3. Expand and simplify the following algebraic expressions:

(a)  $(A - B)^2$   
(d)  $2 - (1 - x)^2$   
(f)  $(5x - 2y)^2 - (5x + 1)(5x - 1)$

(b)  $(A - B)(A + B)$

(c)  $(A + B)^2$   
(e)  $5(x + 3)(4x - 3) - 5x(x + 3)$   
(g)  $(2 - 5x)^2 - (2x - 5) - x(x + 1)$



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