Year 8 Expressions and Equations – Foundation

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Answers and worked solutions · 10 questions

A. Algebra skills

1. **an equation: it can be solved for one value of y (y = 6)**

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2. **a formula: it connects the circumference and the radius of any circle**

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3. **19**

   Substitute, putting negative numbers in brackets
   Indices first: a square of a negative is positive, a cube keeps the sign
   = 19

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   Indices first: a square of a negative is positive, a cube keeps the sign
   = 42

5. **$2a^3$**

   Divide the numbers: 6 ÷ 3 = 2
   Subtract the powers of a: 6 – 3 = 3

6. **$24p^6$**

   Multiply the numbers: 4 × 6 = 24
   Add the powers of p: 3 + 3 = 6

7. **$4y^3 - 28y$**

   Multiply each term in the bracket by 4y
   $4y^3 - 28y$

8. **$10y^3 - 25y^2$**

   Multiply each term in the bracket by $5y^2$
   $10y^3 - 25y^2$

9. **4(8x – 9)**

   HCF of 32 and 36 is 4
   4(8x – 9)

10. **6(8p – 3)**

    HCF of 48 and 18 is 6
    6(8p – 3)