



# Mental Computation

Year 10A Mathematics

End Term 2

## Mental computation (End Term 2)

- 1 Spell Polynomials
- 2 Is  $x - 1$  a factor of  $x^3 + 2x^2 - 2x - 1$ ?
- 3 Simplify:  $(2x^2 - 5x + 1) + (x^2 + 2x - 1)$
- 4 Expand:  $2x^2(2x^2 - 3x - 1)$
- 5 Draw a tree diagram for tossing 3 coins
- 6 What is the quadratic formula?
- 7 Factorise  $x^2 + 5x + 6$
- 8 What is the value of:  $\text{Log}_2 16$
- 9  $^{-}2 - ^{-}5$
- 10 Evaluate  $3^{4?}$

$3^4$ $= 3 \times 3 \times 3 \times 3$ $= 81$
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Sample 1

## Mental computation (End Term 2)

- 1 Spell Quadratic
- 2 Is  $x - 1$  a factor of  $x^3 - 3x^2 - 2x + 4$ ?
- 3 Simplify:  $(2x^2 - 3x + 2) - (x^2 + 3x - 1)$
- 4 Expand:  $2x(3x^2 + 4x - 2)$
- 5 Draw a tree diagram for a family of 3 children
- 6 What is the quadratic formula?
- 7 Factorise  $x^2 - 6x + 5$
- 8 What is the value of:  $\text{Log}_2 32$
- 9  $^{-}3 - ^{-}7$
- 10 Evaluate  $4^{3?}$

Sample 2

## Mental computation (End Term 2)

- 1 Spell Remainder Theorem
- 2 Is  $x + 1$  a factor of  $x^3 - 2x^2 - 2x + 1$ ?
- 3 Simplify:  $(x^3 - 2x + 1) - (3x^3 - 2x - 2)$
- 4 Expand:  $^{-}2x(5x^3 - 2x - 3)$
- 5 Draw a tree diagram for tossing 3 coins
- 6 What is the quadratic formula?
- 7 Factorise  $x^2 - 4x + 4$
- 8 What is the value of:  $\text{Log}_2 64$
- 9  $^{-}5 + ^{-}3$
- 10 Evaluate  $5^{3?}$

Sample 3