**Algebra Passport**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

House: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Completed on: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signed: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Core Skills 1

Collecting like terms

|  |
| --- |
| 1. a + 2a + a = |
| 2. a + b + a + b = |
| 3. 3a + b + a = |
| 4. 5a – b – a + 2b = |
| 5. x + x + 2y – x = |
| 6. x2 + 3x2= |
| 7. 2xy + xy = |
| 8. 4xy – xy + 3a = |
| 9. 6ab + b + ab + 3b = |
| 10. a + b – a + b – a – 2b = |

Checked

Core Skills 2

Multiplying terms

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| --- |
| 1. 3 × 4a = |
| 2. 5 × 5c = |
| 3. 4f × 6 = |
| 4. 2a × 3b = |
| 5. 7b × 2d = |
| 6. 2a × 3a = |
| 7. 2 × 4c × 3d = |
| 8. ab × a = |
| 9. ab × b = |
| 10. 3ab × 2b = |

Checked

Core Skills 3

Multiplying terms challenge



Checked

Core Skills 4

Dividing terms

|  |
| --- |
| 1. 4a ÷ 2 = |
| 2. 10x ÷ 5 = |
| 3. 20y ÷ 4 = |
| 4. 4f ÷ 4 = |
| 5. 6g ÷ 3 = |
| 6. 9p ÷ 3 = |
| 7. 12x ÷ 4 = |
| 8. 16y ÷ 8 = |
| 9. 14a ÷ 7 = |
| 10. 4x ÷ x = |

Checked

Core Skills 5

Expanding brackets

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| --- |
| 1. 3(x + 2) = |
| 2. 5(y - 3) = |
| 3. 10(3x + 2) = |
| 4. 4(2x + y) = |
| 5. 5(3a + 5b) = |
| 6. 6x(y – 2) = |
| 7. 2a(3b + c) = |
| 8. 3h(k – x) = |
| 9. x(x + 1) = |
| 10. a(ab + 2c) = |

Checked

Solving 1

Solving 1 step equations

|  |  |
| --- | --- |
| 1. 4x = 20
 | 6. 14 = a + 3 |
| 1. y + 5 = 8
 | 7. 19 = b - 7 |
| 1. a – 5 = 3
 | 8. 90 = 10x |
| 1. $\frac{y}{4}=3$
 | 9. $5=\frac{x}{3}$ |
| 1. 4x = 36
 | 10. 5 = 2x |

Checked

Solving 2

Solving 2 step equations



Checked

Solving 3

Expand and solve



Checked

Solving 4

Simplify and solve



Checked