SUPER 12s

2 ALGEBRA
2.1 CONVENTIONS
2.1 LEVEL 2

NAME:_____

Skill description: Understanding algebraic conventions:
$x^1 = x$, $a + 0 = a$, $1 \times y = y$, $a \times a = a^2$, $a^0 = 1$ (Index laws)

Essential Revision

1. Identify the terms.
$$15 - 3x = 9$$

2. Identify the coefficient.
$$2x - 4 = 0$$

3. Identify the variable.
$$16 - 2y = 10$$

4. Identify the expression.
$$6y + 1 = 13$$

5. Which of these is an equation?
$$2b = 0$$

$$3x + 12$$

$$b - 4$$

6. Identify the terms.
$$8x - 1 = 39$$

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7. Identify the coefficient.

$$-2c + 11 = 7$$

8. Identify the variable.

$$-2p + 7 = 5$$

9. Identify the expression.

$$9 = -3c + 12$$

10. Which of these is an equation?

$$b = 5$$

$$4x - 11$$

$$b - 4$$

11. Identify the terms.

$$x + 1 = 4$$

12. Identify the coefficient.

$$15 = 2c + 1$$

Solutions can be found at the end of the booklet.

score $\overline{12}$

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Example 1

Any number or variable raised to the power 1 is simply written as itself.

$$x^1 = x$$

$$4^1 = 4$$

$$a^1 = a$$

Example 2

If an algebraic expression involves the addition or subtraction of zero, this is left out of the expression.

$$a + 0 = a$$

$$0 - 7a = -7a$$

Example 3

Any variable multiplied by the number 1 is written as just the variable.

$$1 \times y = y$$

$$1b = b$$

Example 4

Variables multiplied by themselves are written as the variable raised to a power. The power value indicates the number of times the variable is multiplied by itself.

$$a \times a = a^2$$

$$x \times x \times x = x^3$$

$$d \times d \times d \times d = d^4$$

Example 5

The index laws state that any number or variable raised to the power zero equates to 1.

$$a^0 = 1$$

$$4^0 = 1$$

$$2d^0 = 2 \times 1 = 2$$

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1.

$$y^1$$

2.

$$b + 0$$

3.

$$1x$$

4.

$$1y + 2$$

5.

$$c \times c \times c$$

6.

$$x^0$$

7.

$$1b + 3$$

8.

$$a \times a \times a \times a \times a$$

9.

$$0 + 1d$$

10.

$$b^1 + 0$$

11.

$$4x^0$$

12.

$$s^1 + 0$$

SOLUTIONS CAN BE FOUND AT
THE END OF THE BOOKLET.

score $\overline{\mathbf{12}}$

MASTERY TEST

I'VE COMPLETED

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LEVELS THIS YEAR

Solutions to Essential Revision

1. $15, -3x, 9$	2. 2
3. y	4. $6y + 1$
5. $2b = 0$	6. $8x, -1, 39$
7. -2	8. p
9. $-3c + 12$	10. $b = 5$
11. $x, 1, 4$	12. 2

Solutions to Questions

1. y	2. b
3. x	4. $y + 2$
5. c^3	6. 1
7. $b + 3$	8. a^5
9. d	10. b
11. 4	12. s