SUPER 12s

SUPER 12s CAN BE USED AS AN INDIVIDUALISED MASTERY LEARNING PROGRAM.

2 ALGEBRA
2.5 ALGEBRAIC FRACTIONS
2.5 LEVEL 1

NAME:_____

Skill description: Writing algebraic expressions as fractions.

Essential Revision

1. Simplify.

$$\frac{4}{8}$$

2. Write as an improper fraction.

$$2\frac{3}{4}$$

3. Write as a mixed number.

$$\frac{13}{4}$$

4. Simplify.

$$\frac{6}{18}$$

5. Write as an improper fraction.

$$4\frac{2}{3}$$

6. Write as a mixed number.

$$\frac{12}{5}$$

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7. Simplify.

$$\frac{7}{28}$$

8. Write as an improper fraction.

$$5\frac{1}{6}$$

9. Write as a mixed number.

$$\frac{16}{7}$$

10. Simplify.

$$\frac{2}{12}$$

11. Write as an improper fraction.

$$1\frac{7}{9}$$

12. Write as a mixed number.

$$\frac{14}{3}$$

Solutions can be found at the end of the booklet.

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

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In algebra, we avoid using the division sign (÷) and instead prefer to use fractions.

Example 1

Write the following algebraic expression as a fraction.

$$7 \div x$$

Solution

Convert the divide sign into a fraction.

$$7 \div x$$

$$\downarrow$$

$$\frac{7}{x}$$

Example 2

Write the following algebraic expression as a fraction.

$$(x + 7) \div y$$

Solution

As the $x + 7$ is in brackets, this whole expression forms part of the numerator.

$$(x + 7) \div y$$

$$\downarrow$$

$$\frac{x + 7}{y}$$

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Example 3

Write the following algebraic expression as a fraction.

$$x + 7 \div y$$

Solution

In this example, there are no brackets, so only the 7 becomes the numerator.

$$x + 7 \div y$$

$$\downarrow$$

$$x + \frac{7}{y}$$

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1.

$$3x \div y$$

2.

$$xy \div (2z)$$

3.

$$a \div (b + 1)$$

4.

$$(2x + y) \div 7$$

5.

$$(5x + y) \div (a - b)$$

6.

$$9a \div b$$

7.

$$6xy \div (5z)$$

8.
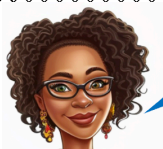
$$(x - y) \div c$$

9.

$$3x + y \div z$$

10.

$$4x \div y + 7$$

11.

$$6gh \div (j + 5)$$

12.

$$2a - b \div y$$

MASTERY TEST

I'VE COMPLETED

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LEVELS THIS YEAR

Solutions to Essential Revision

1. $\frac{1}{2}$

2. $\frac{11}{4}$

3. $3\frac{1}{4}$

4. $\frac{1}{3}$

5. $\frac{14}{3}$

6. $2\frac{2}{5}$

7. $\frac{1}{4}$

8. $\frac{31}{6}$

9. $2\frac{2}{7}$

10. $\frac{1}{6}$

11. $\frac{16}{9}$

12. $4\frac{2}{3}$

Solutions to Questions

1. $\frac{3x}{y}$

2. $\frac{xy}{2z}$

3. $\frac{a}{b+1}$

4. $\frac{2x+y}{7}$

5. $\frac{5x+y}{a-b}$

6. $\frac{9a}{b}$

7. $\frac{6xy}{5z}$

8. $\frac{x-y}{c}$

9. $3x + \frac{y}{z}$

10. $\frac{4x}{y} + 7$

11. $\frac{6gh}{j+5}$

12. $2a - \frac{b}{y}$

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