SUPER 12s

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

2 ALGEBRA
2.10 SOLVING EQUATIONS
2.10 LEVEL 4

NAME : _____

Skill description: Introduction of variables & solving equations with the multiplication/division of integers.

Essential Revision

1. $6 + 15 =$

2. Solve for the unknown.
$\blacksquare + 13 = 25$

3. Solve the equation.
$x + 2 = 31$

4. Solve the equation.
$5x = 35$

5. $2 + 11 =$

6. Solve for the unknown.
$\blacksquare + 11 = 19$

7. Solve the equation.

$$r + 9 = 17$$

8. Solve the equation.

$$4y = 16$$

9.

$$4 + 13 =$$

10. Solve for the unknown.

$$\blacksquare + 13 = 18$$

11. Solve the equation.

$$y - 3 = 9$$

12. Solve the equation.

$$3p = 15$$

Solutions can be found at the end of the booklet.

score $\frac{\quad}{12}$

STRATEGIES TO SOLVE THE PROBLEMS

Strategy 1 – Apply the inverse operation to both sides.

For any constants on the same side of the equal sign as the desired variable, apply the inverse operation (of that constant) to both sides of the equation.

Example 1

Find the value of the variable.

$$\frac{x}{7} = 5$$

Take the number (7) on the same side as the variable and apply the inverse operation $(\times)$ to both sides of the equation.

$$\frac{x}{7} = 5$$

$$\times 7 = \times 7$$

$$x = 35$$

Strategy 2 – Change the side, change the sign.

For any constants on the same side of the equal sign as the desired variable, move to the other side and apply the inverse operation.

Example 2

Find the value of the variable.

$$\frac{x}{4} = 6$$

Take the 4 and move it to the other side of the equation and change the sign from $\div$ to $\times$. Remember the 4 is connected to the x by division (shown as a fraction).

$$\frac{x}{4} = 6$$

$$x = 6 \times 4$$

$$x = 24$$

QUESTIONS

Solve the equations.

1.

$$\frac{x}{6} = 7$$

2.

$$\frac{y}{4} = 6$$

3.

$$\frac{p}{3} = 5$$

4.

$$\frac{m}{2} = 2$$

5.

$$\frac{x}{7} = 6$$

6.

$$\frac{r}{6} = 4$$

7.

$$\frac{y}{8} = 9$$

8.

$$\frac{t}{9} = 9$$

9.

$$\frac{h}{7} = 4$$

10.

$$\frac{z}{12} = 7$$

11.

$$\frac{f}{3} = 7$$

12.

$$\frac{g}{8} = 3$$

SOLUTIONS CAN BE FOUND AT THE END OF THE BOOKLET.

score $\frac{\quad}{12}$

MASTERY TEST

Teacher's signature

I'VE COMPLETED

_____

LEVELS THIS YEAR

Solutions to Essential Revision

1. 21	2. $\blacksquare = 12$
3. $x = 29$	4. $x = 7$
5. 13	6. $\blacksquare = 8$
7. $r = 8$	8. $y = 4$
9. 17	10. $\blacksquare = 5$
11. $y = 12$	12. $p = 5$

Solutions to Questions

1. $x = 42$	2. $y = 24$
3. $p = 15$	4. $m = 4$
5. $x = 42$	6. $r = 24$
7. $y = 72$	8. $t = 81$
9. $h = 28$	10. $z = 84$
11. $f = 21$	12. $g = 24$