Name

Linear Equation Systems - Simple Variable Substitution To Equation

1 Substitute the second variable equation into the first equation to form a single solvable equation

$$2q + 3m = 112$$
$$m = 4q$$
$$q = ?$$

A $2q + 4 = 112$

B $2q + 10q = 112$

C $2q - 10q = 112$

D $2q - 11q = 112$

E $11q + 4 = q$

F $2q + 12q = 112$

2 Substitute the second variable equation into the first equation to form a single solvable equation

$$8n + 4q = 104$$
$$q = 11n$$
$$n = ?$$

A $8n + 11 = 104$

B $8n - 4n = 104$

C $8n - 5n = 104$

D $8n + 44n = 104$

E $5n + 11 = n$

F $8n + 4n = 104$

3 Substitute the second variable equation into the first equation to form a single solvable equation

$$5r + 2q = 30$$
$$q = 5r$$
$$r = ?$$

A $5r + 4r = 30$

B $5r + 5 = 30$

C $5r - 5r = 30$

D $5r + 5 = r$

E $5r - 4r = 30$

F $5r + 10r = 30$

4 Substitute the second variable equation into the first equation to form a single solvable equation

$$4r + 5m = 145$$
$$m = 5r$$
$$r = ?$$

A $4r + 7r = 145$

B $8r + 5 = r$

C $4r + 5 = 145$

D $4r - 8r = 145$

E $4r + 25r = 145$

F $4r - 7r = 145$

5 Substitute the second variable equation into the first equation to form a single solvable equation

$$9p + 2z = 147$$
$$z = 6p$$
$$p = ?$$

A $10p + 6 = p$

B $9p + 6 = 147$

C $9p + 9p = 147$

D $9p - 9p = 147$

E $9p - 10p = 147$

F $9p + 12p = 147$

6 Substitute the second variable equation into the first equation to form a single solvable equation

$$9y + 2x = 60$$
$$x = 3y$$
$$y = ?$$

A $9y + 6y = 60$

B $9y - 7y = 60$

C $9y - 6y = 60$

D $7y + 3 = y$

E $9y + 3 = 60$

7 Substitute the second variable equation into the first equation to form a single solvable equation

$$9w + 2z = 39$$
$$z = 2w$$
$$w = ?$$

A $9w + 2 = 39$

B $9w - 5w = 39$

C $6w + 2 = w$

D $9w - 6w = 39$

E $9w + 4w = 39$

F $9w + 5w = 39$

8 Substitute the second variable equation into the first equation to form a single solvable equation

$$5x + 5q = 150$$
$$q = 9x$$
$$x = ?$$

A $5x - 5x = 150$

B $5x + 45x = 150$

C $5x + 5x = 150$

D $6x + 9 = x$

E $5x + 9 = 150$

F $5x - 6x = 150$