Simultaneous Equations
Elimination Method
Grade 11

The following questions have been solved incorrectly. Find the mistake in each question, make the corrections and find the correct solutions.

$12x - 6y = 12$
$10x + 6y = 32$

Subtracting

$2x \quad = -20$

$\dfrac{2x}{2} \quad = \dfrac{-20}{2}$

$x \quad = -10$

Substitute x = -10 into equation 2

$10(-10) + 6y = 32$

$-100 + 6y = 32$

$6y = 32 + 100$

$6y = 132$

$\dfrac{6y}{6} = \dfrac{132}{6}$

$y = 22$

$x =$ _____ $y =$ _____

$3x + 2y = 14$
$4x + 2y = 16$

Subtracting

$x \quad = -2$

Substitute x = -2 into equation 1

$3(-2) + 2y = 14$

$-6 + 2y = 14$

$2y = 14 + 6$

$2y = 20$

$\dfrac{2y}{2} = \dfrac{20}{2}$

$y = 10$

$x =$ _____ $y =$ _____