

QUESTION 7

Argument to show that $1 = 2$.

We start with the identity

$$1 - 3 = 4 - 6$$

Adding $\frac{9}{4}$ to both sides to complete the squares, we get

$$1 - 3 + \frac{9}{4} = 4 - 6 + \frac{9}{4}$$

This factors as

$$(1 - \frac{3}{2})^2 = (2 - \frac{3}{2})^2$$

Taking the square root of both sides,

$$1 - \frac{3}{2} = 2 - \frac{3}{2}$$

Hence

$$1 = 2$$