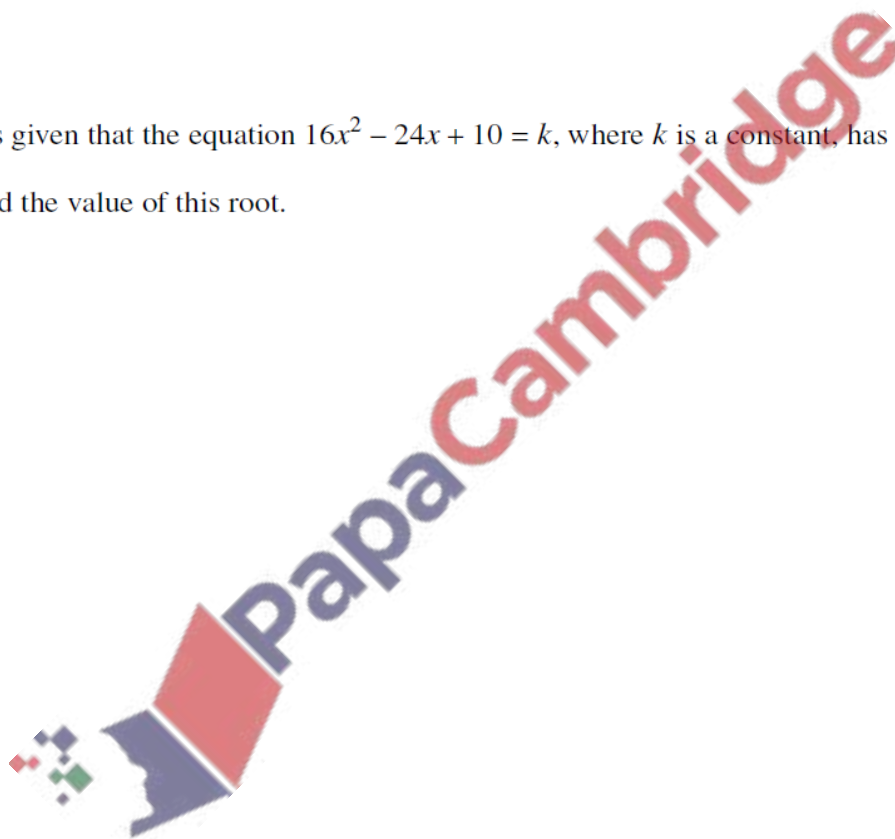## Quadratics – 2021 AS

1.

   (a) Express $16x^2 - 24x + 10$ in the form $(4x + a)^2 + b$. [2]

   (b) It is given that the equation $16x^2 - 24x + 10 = k$, where k is a constant, has exactly one root.

   Find the value of this root. [2]

By using a suitable substitution, solve the equation

$$(2x-3)^2 - \frac{4}{(2x-3)^2} - 3 = 0.$$

[4]