Leave blank

2.

$$\mathbf{M} = \begin{pmatrix} k-12 & 3 \\ 4 & k \end{pmatrix}, \text{ where } k \text{ is a real constant}$$

The transformation represented by the matrix **M** transforms hexagon R to hexagon S.

The area of hexagon R is 20 square units and the area of hexagon S is 320 square units.

Find the possible values of k.

(5)

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Question 2 continued

Q2

(Total 5 marks)