

QUESTION ONE

(a) Factorise $49x^2 - 100$

(4 marks)

Hence, simplify $\frac{49x^2 - 100}{14x + 20}$

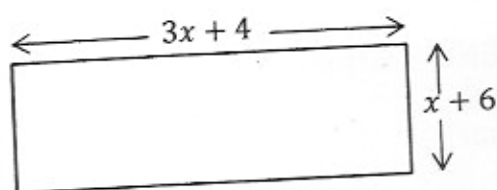
(1 marks)

(b) Simplify $\frac{(2p-5)^9}{(2p-5)^6}$

(2 marks)

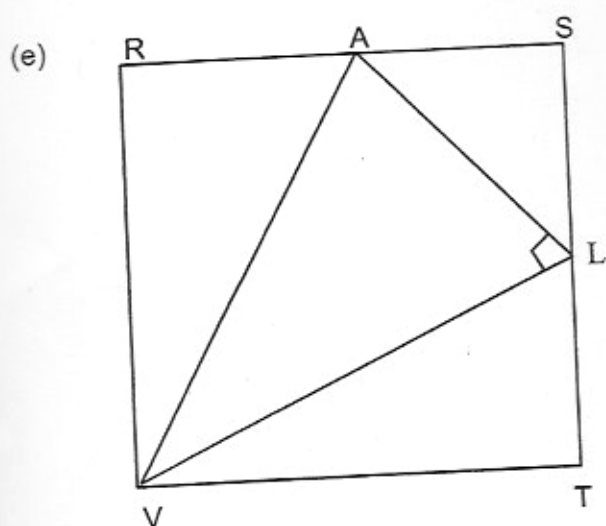
(c) Express $100^{-\frac{1}{2}}$ as a fraction

(d) The diagram shows an electrical component in the shape of a rectangle:



All measurements are in metres. If the perimeter of the component is 32 metres, find the area of the component.

(4 marks)



RSTV is a square with a side length of $4x$. L is the midpoint of ST. A is a point on RS where $AS = x$.

ALV is a right angled triangle.

(i) Find an expression, in terms of x for the area of triangle ALV.

(5 marks)