16 (a) Rationalise the denominator of $\dfrac{a+\sqrt{4b}}{a-\sqrt{4b}}$ where a is an integer and b is a prime number.

Simplify your answer.

(3)

(b) Given that $\left(\sqrt{\dfrac{y}{x}}\right)^{-5} = \dfrac{x^m}{y^m}$ where $x \neq y$

find the value of m.

$m =$

(1)

(Total for Question 16 is 4 marks)

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