# 1.10 Expressions with non-integer exponents\_P1

**1.** *[7 marks]*

Solve .



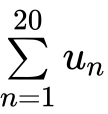
**2a.** *[2 marks]*

An arithmetic sequence has  and , where  and .

Show that .



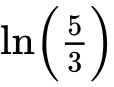
**2b.** *[6 marks]*

Let  and . Find the value of .



**3a.** *[2 marks]*

Let  and . Write the following expressions in terms of  and .

.



**3b.** *[4 marks]*

.

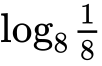


**4a.** *[1 mark]*

Write down the value of

(i)     ;

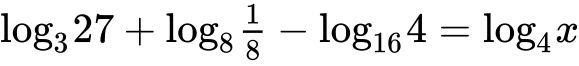
**4b.** *[1 mark]*

(ii)     ;

**4c.** *[1 mark]*

(iii)     .

**4d.** *[3 marks]*

Hence, solve .

**5a.** *[2 marks]*

Find the value of each of the following, giving your answer as an integer.



**5b.** *[2 marks]*



**5c.** *[3 marks]*



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