10 (a) Write the binary number 1101 as a decimal number.

Answer ————————— [1]

(b) Write the decimal number 31 as a binary number.

Answer ————————— [1]

9 Mark writes out the terms of the sequence with n th term rule $3n + 5$

Sean writes out the terms of the sequence with n th term rule $5n - 3$

Which term number has the same value for both sequences?

Answer ————————— [4]

Write as a fraction.

$$5^{-3}$$

....

(1)

Draw the locus of all points which are equidistant from points A and B.

A
x

B
x

(2)

Alex and Thomas share 30 sweets.
They divide them in the ratio 3:2.

How many sweets does Thomas have?

....

(2)