

## Unit 2H ALGEBRA (Phase 1) CONSOLIDATION and REVISION

NAME

Time:

### Non-Calculator Questions



1 a Expand  $4x(2x - 3)$

(1 mark)



b Expand and simplify  $5(4x - 2) - 3(1 - x)$

(2 marks)



c Expand and simplify  $(7x + 1)(2x - 5)$

(2 marks)

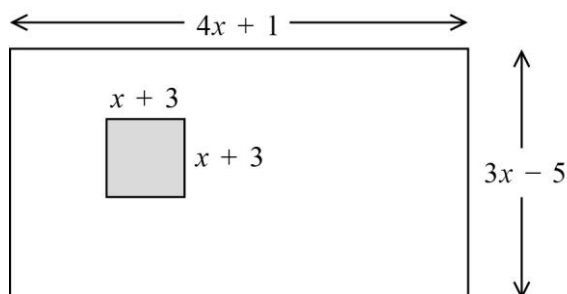


3 Make  $x$  the subject of the formula  $y = 9ax - 4b$

(2 marks)



5 Here is a rectangular piece of card.



A square of length  $(x + 3)$  has been removed from the card.

Write down an expression, in terms of  $x$ , for the area of the card that is left.

Write your answer in its simplest form.

(3 marks)

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- 7 The  $n$ th term of a sequence is  $u_n = 10 \times 3^n$

Write down the first four terms in the sequence.

(2 marks)

- 9  $P$  and  $Q$  are two arithmetic sequences.

The first four terms of sequence  $P$  are 2, 6, 10, 14

The  $n$ th term of sequence  $Q$  is  $145 - 3n$

The  $r$ th term of sequence  $P$  has the same value as the  $r$ th term of sequence  $Q$ .

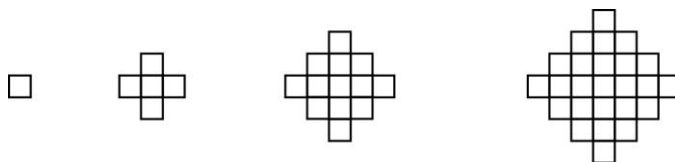
Work out the value of  $r$ .

(4 marks)

- 11 Simplify  $12c^6 \div 4c^{-2}$

(2 marks)

- 13 Here is a sequence of patterns made from small squares.



Find an expression in terms of  $n$  for the number of small squares in the  $n$ th pattern.

(3 marks)

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15 Expand and simplify  $(3x + 7)(7 - 3x)$

**(2 marks)**

Overall score	/
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