

Name: \_\_\_\_\_

**ASM Tuition Academy**  
**Rearranging Harder Formula**

**Instructions:**

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided  
- there may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out**.

**Information:**

- The marks for each question are shown in brackets  
- use this as a guide as to how much time to spend on each question.

**Advice:**

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.

Check your answers if you have time at the end

**Q1- Make  $q$  the subject of the formula  $p = q + at$ .**

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**(Total for question 1 is 1 mark)**

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**Q2- Make a the subject of the formula  $p = q + at$**

.....

**(Total for question 2 is 2 marks)**

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**Q3- Make b the subject of the formula  $a^2 = b^2 + 2cd$**

.....

**(Total for question 3 is 2 marks)**

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**Q4- Make c the subject of the formula  $a^2 = b^2 + 2cd$**

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**(Total for question 4 is 2 marks)**

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**Q5- Make a the subject of the formula  $s = vt + \frac{1}{2} at^2$**

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**(Total for question 5 is 2 marks)**

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**Q6- Make v the subject of the formula  $K = \frac{1}{2} mv^2$**

.....

**(Total for question 6 is 2 marks)**

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**Q7- Make x the subject of the formula  $3x + a = b(x - 3)$**

**(Total for question 7 is 3 marks)**

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**Q8- Make x the subject of the formula  $x(3+a) = b(x+4)$**

**(Total for question 8 is 3 marks)**

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**Q9- Make x the subject of the formula  $a = \frac{x+6}{x+3}$**

**(Total for question 9 is 3 marks)**

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**Q10- Make x the subject of the formula  $a = \frac{x+p}{x-q}$**

**(Total for question 10 is 3 marks)**

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**Q11- Make x the subject of the formula  $a/b = 3x/(x+6)$**

**(Total for question 11 is 3 marks)**

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**Q12- Make x the subject of the formula  $a = (5 + 3bx) / (3x - 4)$ .**

**(Total for question 12 is 3 marks)**

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**Q13- Make q the subject of the formula  $1/p = 1/q + 1/r$**

**(Total for question 13 is 4 marks)**