

**These are P2 questions(all variants) as the syllabus is same as P3 :)**

**Q1.**

1 Solve the inequality  $|x - 4| > |x + 1|$ . [4]

**Q2.**

1 Solve the inequality  $|x| > |3x - 2|$ . [4]

**Q3.**

1 Solve the inequality  $|2x - 7| > 3$ . [3]

**Q4.**

1 Solve the inequality  $|x - 3| > |x + 2|$ . [4]

**Q5.**

1 Solve the inequality  $|3x - 1| < 2$ . [3]

**Q6.**

2 Solve the inequality  $|3x + 2| < |x|$ . [4]

**Q7.**

1 Solve the inequality  $|2x - 3| > 5$ . [3]

**Q8.**

3 Solve the inequality  $|2x - 1| < |x + 4|$ . [4]

**Q9.**

1 Solve the equation  $|3x + 4| = |2x + 5|$ . [3]

**Q10.**

- 1 Solve the equation  $|x^3 - 14| = 13$ , showing all your working. [4]

**Q11.**

- 1 Solve the inequality  $|x + 3| < |2x + 1|$ . [4]

**Q12.**

- 1 Solve the equation  $|2^x - 7| = 1$ , giving answers correct to 2 decimal places where appropriate. [5]

**Q13.**

- 2 Solve the inequality  $|x - 8| > |2x - 4|$ . [4]

**Q14.**

- 1 Solve the inequality  $|2x - 1| < |3x|$ . [4]

**Q15.**

- 1 Find the set of values of  $x$  satisfying the inequality  $|8 - 3x| < 2$ . [3]

**Q16.**

- 1 Solve the inequality  $|x + 1| > |x|$ . [3]

**Q17.**

- 1 Solve the inequality  $(0.8)^x < 0.5$ . [3]

**Q18.**

- 1 Solve the inequality  $|2x - 1| > |x|$ . [4]

**Q19.**

- 3 (i) Solve the inequality  $|y - 5| < 1$ . [2]  
(ii) Hence solve the inequality  $|3^x - 5| < 1$ , giving 3 significant figures in your answer. [3]

**Q20.**

- 1 Solve the inequality  $|x - 3| > |2x|$ . [4]

**Q21.**

- 1 Solve the inequality  $|2x + 3| < |x - 3|$ . [4]

**Q22.**

- 1 Solve the inequality  $|x + 3| > |2x|$ . [4]

**Q23.**

- 1 Solve the inequality  $|x + 1| > |x - 4|$ . [3]

**Q24.**

- 1 Solve the inequality  $|3x + 1| > 8$ . [3]

**Q25.**

- 1 Solve the inequality  $|4 - 5x| < 3$ . [3]

**Q26.**

- 1 Solve the inequality  $|x + 2| > \left| \frac{1}{2}x - 2 \right|$ . [4]

**Q27.**

- 2 Solve the inequality  $|2x - 3| \leq |3x|$ . [4]

**Q28.**

- 1 Solve the inequality  $|x - 2| \geq |x + 5|$ . [3]

**Q29.**

- 1 Solve the inequality  $|2x + 1| < |2x - 5|$ . [3]

**Q30.**

- 1 Solve the inequality  $|x + 1| < |3x + 5|$ . [4]

**Q31.**

- 1 Solve the inequality  $|3x - 2| \geq |x + 4|$ . [4]

**P3 (variant1 and 3)**

**Q1.**

- 1 Solve the inequality  $|x + 3a| > 2|x - 2a|$ , where  $a$  is a positive constant. [4]

**Q2.**

- 1 Solve the inequality  $|x - 3| > 2|x + 1|$ . [4]

**Q3.**

- 1 Solve the inequality  $|4x + 3| > |x|$ . [4]

**Q4.**

- 1 Solve the inequality  $2 - 3x < |x - 3|$ . [4]

**Q5.**

- 1 Solve the inequality  $2|x - 3| > |3x + 1|$ . [4]

**Q6.**

- 1 Find the set of values of  $x$  satisfying the inequality  $3|x - 1| < |2x + 1|$ . [4]

**Q7.**

- 1 Solve the inequality  $|3x - 1| < |2x + 5|$ . [4]

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