

BrightRED Revision Cards

HIGHER

MATHEMATICS



BRIGHT RED REVISION CARDS

These revision cards are packed full of great Higher Mathematics questions, diagrams, illustrations, answers and tips to help you to actively test your knowledge and ramp up your revision.

Each card covers a course topic which offers a mixture of multiple-choice and exam-style questions. Answers and explanations with key pointers are on the reverse.

- All key course topics covered in order
- Multiple-choice questions to get things going
- Exam-style questions to follow up



- Answers with short explanations
- **REMEMBER!** tips to shine a light on any harder concepts or questions

HOW TO USE

You can test yourself alone or with friends and should do so at spaced intervals when you feel confident about the topics you have studied. You can use the cards in any order to vary your approach and can shuffle the pack to mix things up a little bit!

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QUESTIONS

- 1** The line L passes through the point $(\frac{1}{2}, -1)$ and is perpendicular to the line with equation $3x + 5y - 4 = 0$. What is the equation of L ?
- A** $10y + 13 = 6x$
B $10y + 6x + 7 = 0$
C $6y + 11 = 10x$
D $3y = 5x + 11$
- 2** The line L passes through the point $(-3, \frac{1}{5})$ and is parallel to the line with the equation $3x - 5y - 8 = 0$. What is the equation of L ?
- A** $3y + 5x + 16 = 0$
B $5y = 3x + 10$
C $5y = 3x + 16$
D $5y + 3x + 8 = 0$
- 3** Triangle PQR has vertices $P(3, 4)$, $Q(-6, 6)$ and $R(-4, -2)$
- Find the equation of the altitude through P
 - Find the equation of the median through P
 - What kind of triangle is PQR ? Justify your answer

1

UNIT 1: ALGEBRAIC AND GEOMETRIC SKILLS

STRAIGHT LINES 1

ANSWERS

1 C

REMEMBER! Perpendicular - at right angles, so $m_1 m_2 = -1$ is often used.

REMEMBER! To find a perpendicular gradient you invert and change the sign.

2 B

REMEMBER! Straight lines will intersect with each other unless they are parallel. Here you should remember $m_1 = m_2$ for parallel lines.

3

a $x - 4y + 13 = 0$

b $x - 4y + 13 = 0$

c Isosceles, as median and altitude are same line

