## Samples Equation of a straight line SOLUTIONS

- 1. The original line has an infinite gradient; it is vertical and parallel to the y-axis. Therefore the line perpendicular to it will be horizontal with equation of the form y = c, where c is a constant.

  The point (7, -4) lies on the new line, so the equation of the new line is y = -4.
- 2. The original line has an infinite gradient; it is vertical and parallel to the y-axis. Therefore the line perpendicular to it will be horizontal with equation of the form y = c, where c is a constant. The point (3,3) lies on the new line, so the equation of the new line is y = 3.
- 3. The original line has an infinite gradient; it is vertical and parallel to the y-axis. Therefore the line perpendicular to it will be horizontal with equation of the form y = c, where c is a constant. The point (7,5) lies on the new line, so the equation of the new line is y = 5.
- **4.** The original line has an infinite gradient; it is vertical and parallel to the y-axis. Therefore the line perpendicular to it will be horizontal with equation of the form y = c, where c is a constant. The point (-9, -8) lies on the new line, so the equation of the new line is y = -8.
- 5. The original line has an infinite gradient; it is vertical and parallel to the y-axis. Therefore the line perpendicular to it will be horizontal with equation of the form y = c, where c is a constant. The point (-4,3) lies on the new line, so the equation of the new line is y = 3.