National 5 Homework

Algebraic Skills | Straight Line Equations & Linear Functions

1. Find the equation of the straight line joining the points A(3, -2) and B(1,6).

2. A linear function has equation f(x) = 6x – 7. If f(t) = 41, find the value of t.

3. Work out the gradient and y-intercept of the straight line with equation 4x + 5y – 15 = 0.

4. A straight line has a gradient of -2 and passes through the point (-4, -2). Find the equation of this line.

5. Find the equation of the line joining the points (9, 6) and (6, 4). Give your answer in its simplest form.

6. A linear function has equation f(x) = 3x + 11. If f(a) = 20, find the value of a.

7. Find the equation of a line passing through A(4, 2) and B(4, -5).

8. A straight line has equation 3x + 2y + 9 = 0. Find the gradient and y-intercept of this line.

9. Find the equation of the line joining the points (-2,5) and (3,15).

   Give the equation in its simplest form. **[SQA Paper 1 3 Marks]**

10. A linear function has equation g(x) = 6x + 7. If g(p) = 31, find the value of p.

11. Write down the gradient and y-intercept of the equation 2x – 5y + 20 = 0.

12. Find the equation of the straight line shown below.