

ENTRANCE TEST

1. Draw graphs:

a) $y = 2x + 1$

b) $y = x^2 + 3$

2. Solve equations:

a) $2x + (x-1) = x + 14$

b) $x^2 + 4x + 3 = 0$

3. Solve inequalities:

a) $x - (4x+3) < 2(x+1)$

b) $x^2 + 2x - 3 > 0$

4. Take the derivative:

a) $y = 3x^2 + 5x + 8$

b) $y = \sin x + e^x + 5 \ln x$