

**Problem statement** Suppose  $f(x) = Ax + \frac{B}{x^2}$  where  $A$  and  $B$  are constants. Find values of  $A$  and  $B$  so that  $y = 2x + 1$  is tangent to  $y = f(x)$  when  $x = -1$ . Graph the resulting  $f(x)$  and the tangent line together when  $-4 \leq x \leq 2$  and  $-6 \leq y \leq 4$ .