**4F Stretching Graphs**

1. Given that $f\left(x\right)=9-x^{2}$, sketch the curves with equations:
2. $y=f(2x)$
3. $y=2f(x)$

x

y

x

y

x

y

1. Sketch the curve with equation $y=x(x-2)(x+1)$

x

y

1. Hence, sketch the curve $y=2x(2x-2)(2x+1)$

x

y

1. Based on your sketch in a), also sketch the curve $y=-x(x-2)(x+1)$

x

y

1. On the same set of axes, draw the graphs of $y=f(x)$, $y=f(-x)$ and

$y=-f(x)$ where $f\left(x\right)=x(x+2)$

x

y