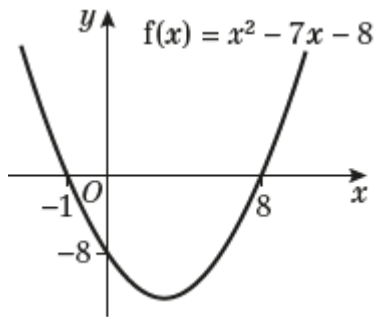
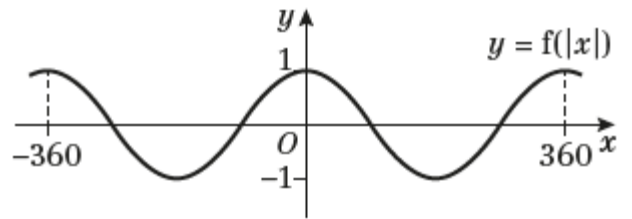


Exercise 2E

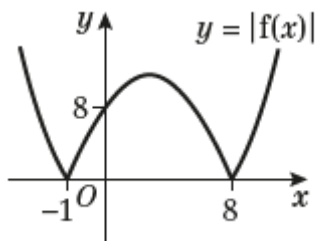
1 a



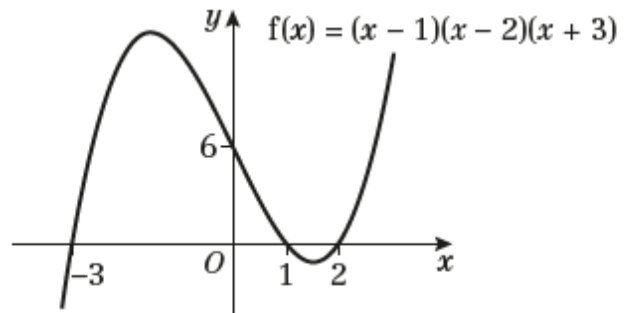
2 c



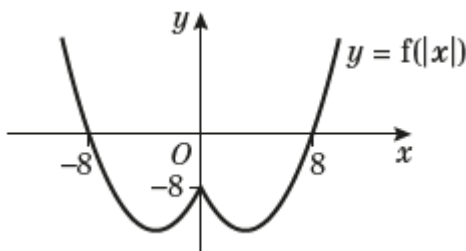
b



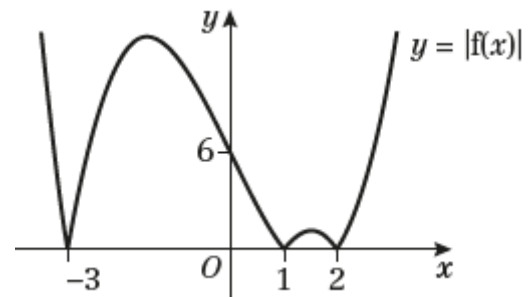
3 a



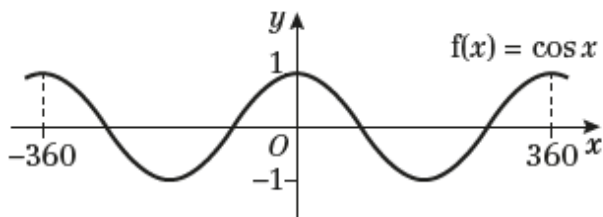
c



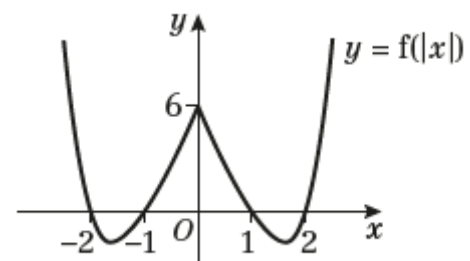
b



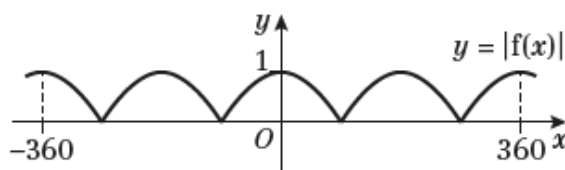
2 a



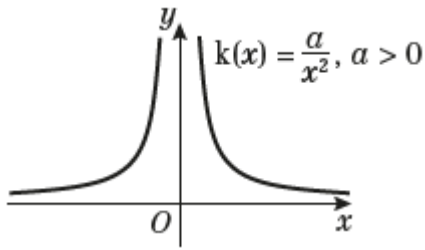
3 c



b

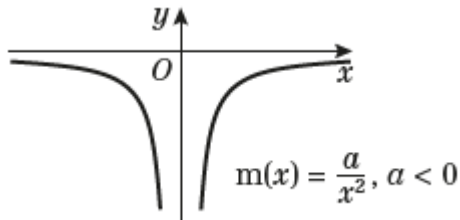


4 a



b There is no need to sketch $y = |k(x)|$ and $y = k(|x|)$ as these graphs would match the original graph.

c



d i $|k(x)| = |m(x)|$ is true:

$$|k(x)| = \left| \frac{a}{x^2} \right| = \left| \frac{-a}{x^2} \right| = |m(x)|$$

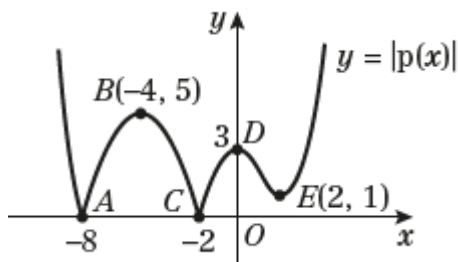
ii $k(|x|) = m(|x|)$ is false:

$$k(|x|) = \frac{a}{|x|^2} \neq \frac{-a}{|x|^2} = m(|x|)$$

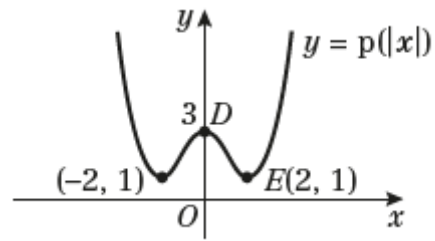
iii $m(x) = m(|x|)$ is true:

$$m(x) = \frac{-a}{|x|^2} = \frac{-a}{|x|^2} = m(|x|)$$

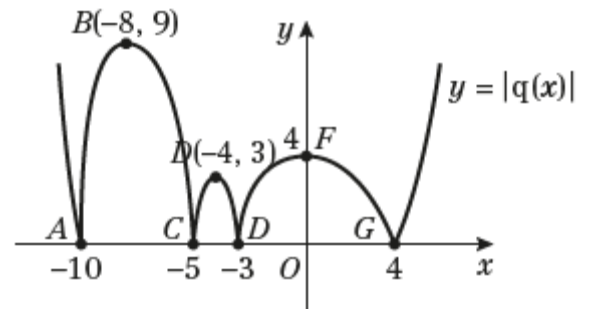
5 a



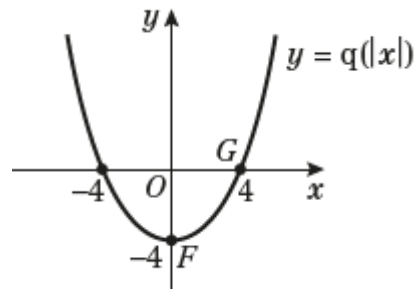
5 b



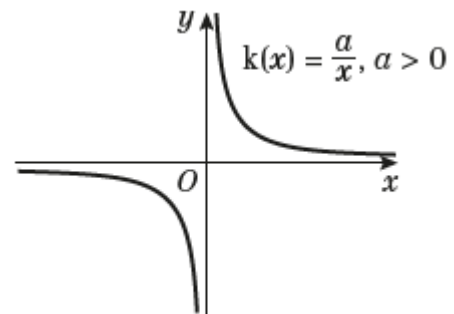
6 a



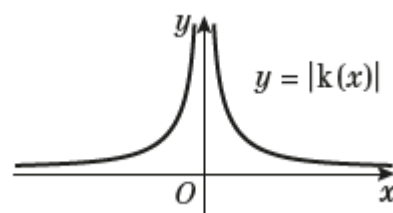
b



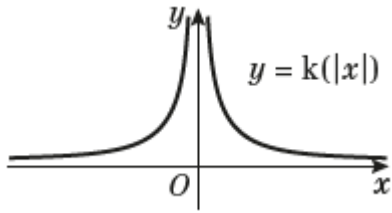
7 a



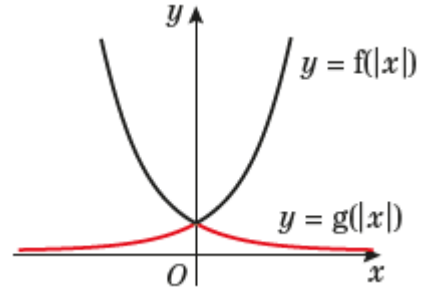
b



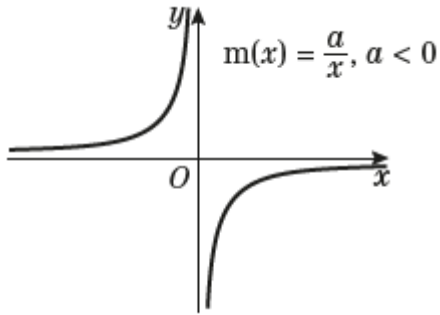
7 c



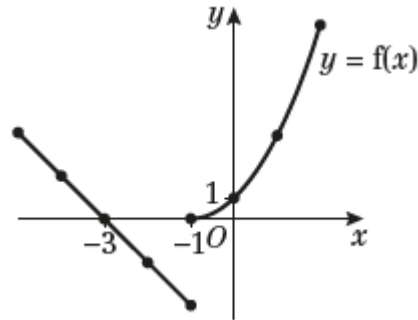
c



8 a



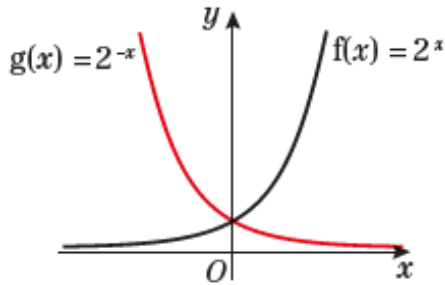
10 a



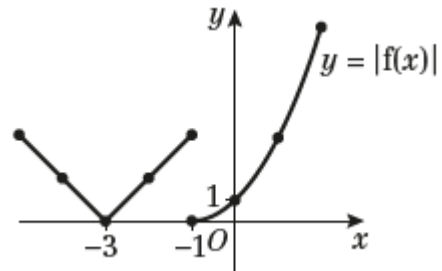
b $y = |m(x)|$ and $y = m(|x|)$ are reflections of each other in the x -axis.

$$|m(x)| = -m(|x|)$$

9 a



b



b The graphs of $y = |f(x)|$ and $y = |g(x)|$ are the same as the original graph.

c

