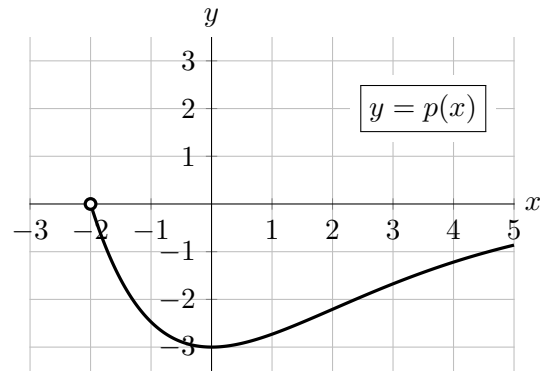
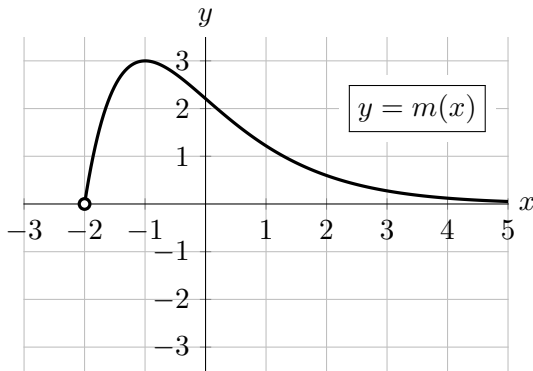


6. [4 points] Shown below at left is a portion of the graph of a function  $m(x)$ . Shown below at right is a portion of the graph of a function  $p(x)$ , which can be obtained from  $m(x)$  through one or more graph transformations. Find a formula for  $p(x)$  in terms of  $m(x)$ .



**Answer:**  $p(x) =$  \_\_\_\_\_

7. [9 points] For a constant  $c$ , let

$$K(x) = \frac{2^{cx}}{e^{x-c}}.$$

- a. [5 points] Use the limit definition of the derivative to write an explicit expression for  $K'(3)$ . Your answer may include the constant  $c$  but should not involve the letter  $K$ . Do not attempt to evaluate or simplify the limit. Write your final answer in the answer box provided below.

**Answer:**  $K'(3) =$

- b. [4 points] Find the value of  $c$  so that  $K(1) = 5$ . Give your answer in **exact form** and show all your work.

**Answer:**  $c =$  \_\_\_\_\_