Section 8.4 Quadratic Functions

1. True or False: All quadratic functions have domain \((-\infty, \infty)\).
   (a) True, and I am very confident
   (b) True, but I am not very confident
   (c) False, but I am not very confident
   (d) False, and I am very confident

2. True or False: All quadratic functions have range \((-\infty, \infty)\).
   (a) True, and I am very confident
   (b) True, but I am not very confident
   (c) False, but I am not very confident
   (d) False, and I am very confident

3. True or False: All quadratic functions have at least one \(x\)-intercept.
   (a) True, and I am very confident
   (b) True, but I am not very confident
   (c) False, but I am not very confident
   (d) False, and I am very confident

4. True or False: Quadratic functions may have more than one \(y\)-intercept.
   (a) True, and I am very confident
   (b) True, but I am not very confident
   (c) False, but I am not very confident
   (d) False, and I am very confident
5. True or False: The table of data below could represent a quadratic function.

<table>
<thead>
<tr>
<th>$x$</th>
<th>$f(x)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>−2</td>
<td>1</td>
</tr>
<tr>
<td>0</td>
<td>−3</td>
</tr>
<tr>
<td>1</td>
<td>−2</td>
</tr>
<tr>
<td>4</td>
<td>13</td>
</tr>
</tbody>
</table>

(a) True, and I am very confident
(b) True, but I am not very confident
(c) False, but I am not very confident
(d) False, and I am very confident

6. True or False: If a linear function and a quadratic function are graphed on the same coordinate axes, there must be at least one point of intersection.

(a) True, and I am very confident
(b) True, but I am not very confident
(c) False, but I am not very confident
(d) False, and I am very confident