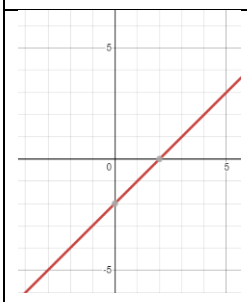
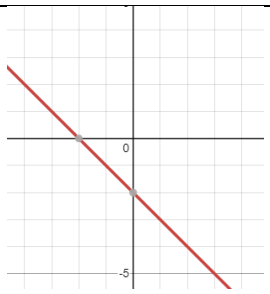
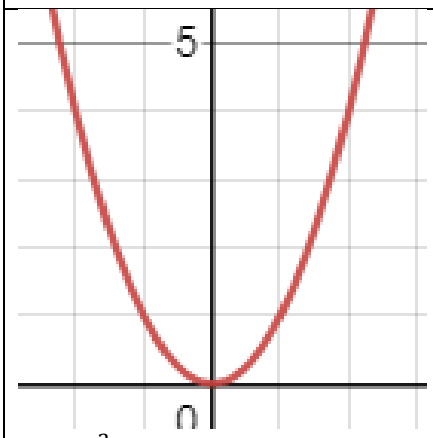
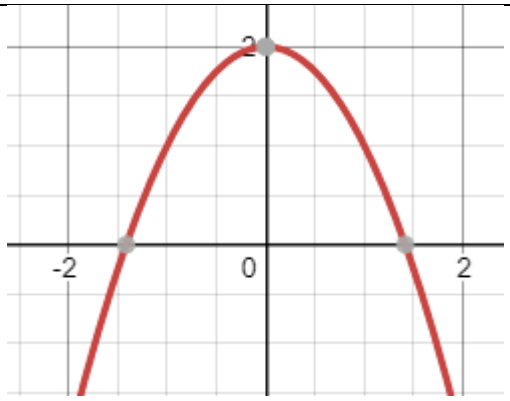
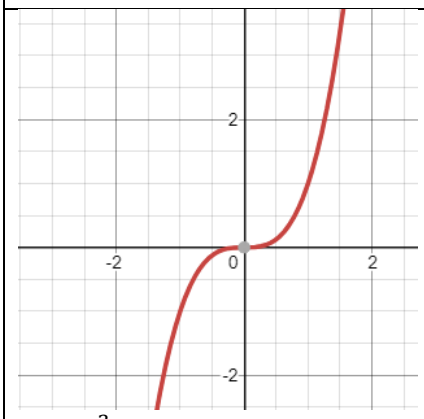
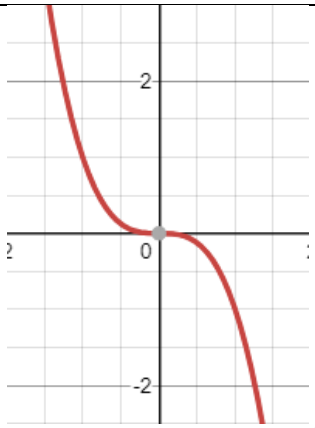
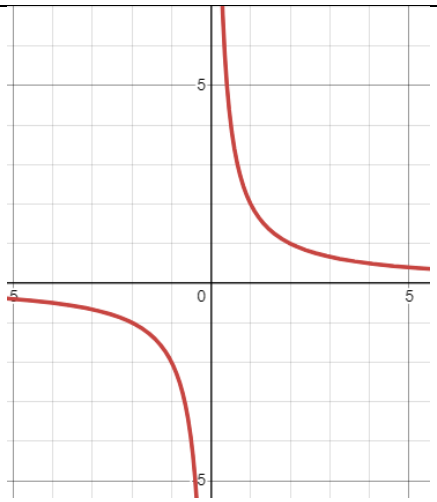
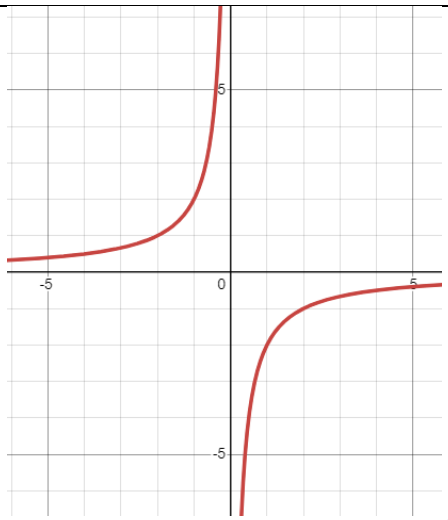
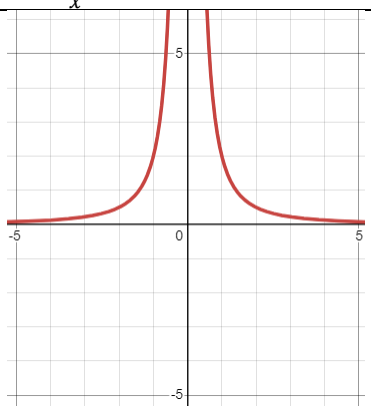
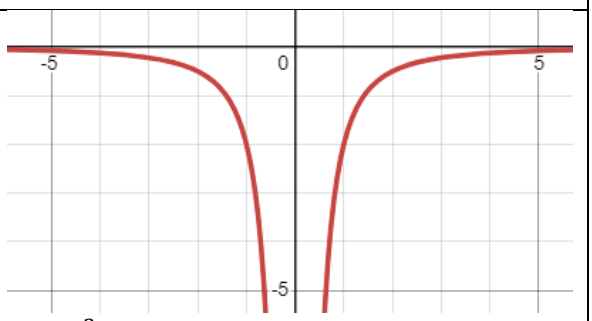
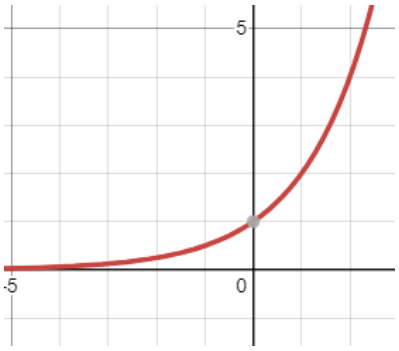
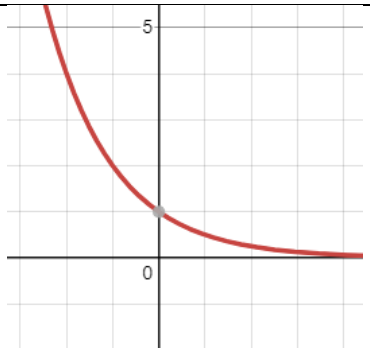
Graphs of Function

<table>
<tr>
<td><u>1 Linear Function</u>
$y = mx + c$</td>
<td colspan="2">$when\ m > 0, slope\ up$
$when\ m < 0\ slope\ down$</td>
</tr>
<tr>
<td></td>
<td> 
$y = x - 2$</td>
<td> 
$y = -x - 2$</td>
</tr>
<tr>
<td><u>2 Quadratic Function</u>
$y = ax^2 + bx + c$</td>
<td colspan="2">$when\ a > 0,$ $U\ shaped\ graph$
$when\ a < 0,$ $N\ shaped\ graph$</td>
</tr>
<tr>
<td></td>
<td> 
$y = x^2$</td>
<td> 
$y = -x^2 + 2$</td>
</tr>
<tr>
<td><u>3 Cubic Function</u>
$y = ax^3 + bx^2 + cx + d$</td>
<td colspan="2">$when\ a > 0,$ $S\ shaped\ graph$
$when\ a < 0,$ $flip\ shaped\ graph$</td>
</tr>
<tr>
<td></td>
<td> 
$y = x^3$</td>
<td> 
$y = -x^3$</td>
</tr>
</table>

4 Reciprocal Function $y = \frac{k}{x}$	 $y = \frac{2}{x}$	 $y = \frac{2}{-x}$
5 Hyperbolic Function $y = \frac{k}{x^2}$	 $y = \frac{2}{x^2}$	 $y = \frac{2}{-x^2}$
6 Exponential Function $y = a^x, \quad y = a^{-x}, a > 1$	 $y = 2^x$	 $y = 2^{-x}$