

## Natural Exponential Functions

Graph the following and state the domain and range:

1.  $y = -e^x$

2.  $y = -e^{-x}$

3.  $y = 2 + e^x$

4.  $y = -3 + e^{x-1}$

5.  $y = e^{x+2} - 4$

6.  $y = 2e^{x-4} + 5$

7.  $y = -4e^{x-1} + 3$

8.  $y = e^{3-x}$

9.  $y = -2e^{-x} + 6$

10.  $y = e^{2x+6}$

11.  $y = 7 - 3e^x$

12.  $y = \frac{4}{1 + 3e^{-x}}$

13.  $y = \frac{16}{1 + 7e^{-0.2x}}$

14.  $y = \frac{50}{2 + 23e^{-0.1x}}$

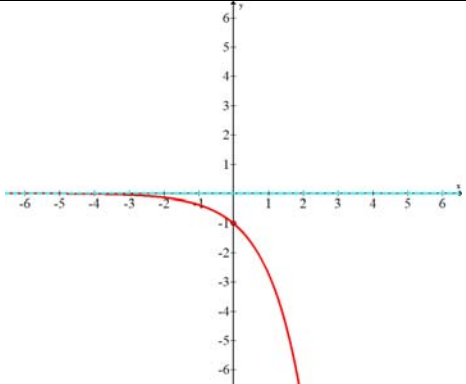
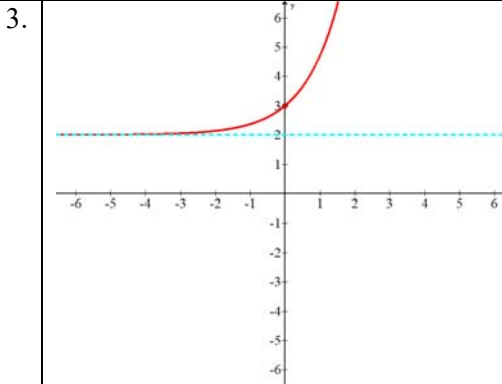
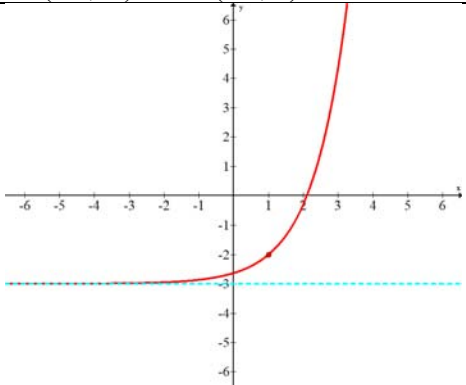
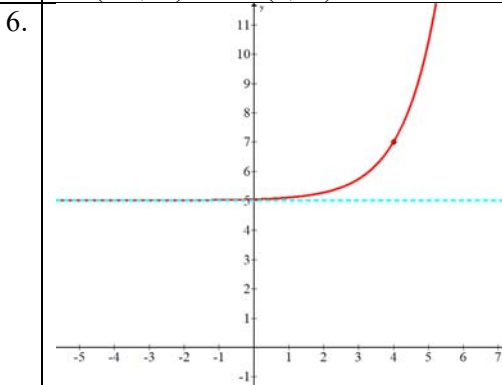
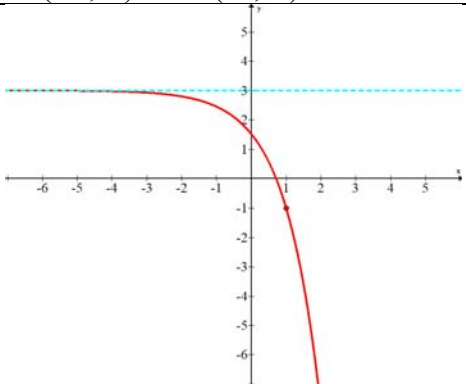
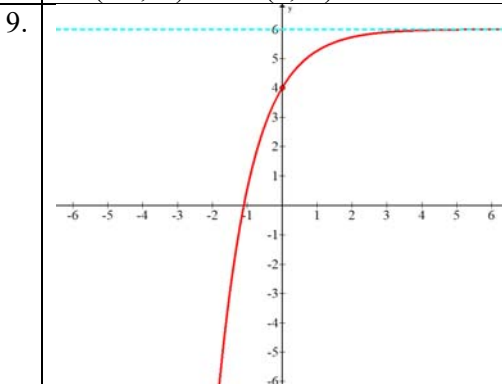
15.  $y = \frac{3}{0.2 + 4e^{-0.3x}}$

16.  $y = \frac{5}{0.1 + e^{-x}}$

17.  $y = 30(1 - e^{-x})$

18.  $y = 4(1 - e^{-0.5x})$

Answers

<p>1.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(-\infty, 0)</math></p>	<p>2.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(2, \infty)</math></p>
<p>4.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(-3, \infty)</math></p>	<p>5.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(5, \infty)</math></p>
<p>7.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(-\infty, 3)</math></p>	<p>8.</p>	 <p>D: <math>(-\infty, \infty)</math> R: <math>(-\infty, 6)</math></p>

