

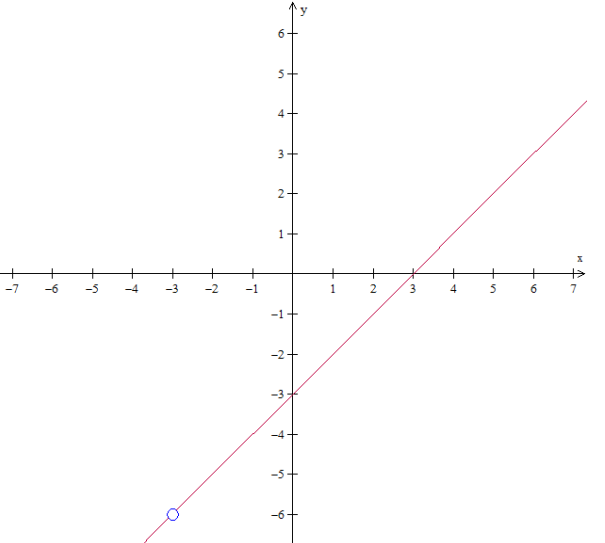
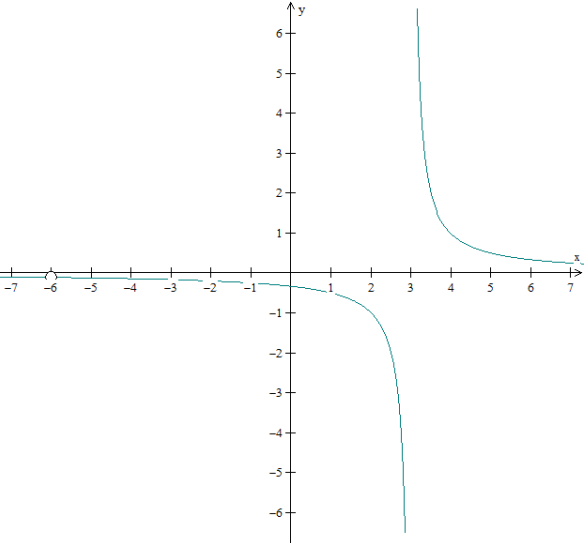
Continuity - Key

In problems 1-12, determine the continuity of the function

1. $(-\infty, \infty)$	2. $(-\infty, -5) \cup (-5, 5) \cup (5, \infty)$ <i>or</i> $x \neq -5, 5$
3. $(-\infty, 3) \cup (3, 9) \cup (9, \infty)$ <i>or</i> $x \neq 3, 9$	4. $(-\infty, 1) \cup \left(1, \frac{3}{2}\right) \cup \left(\frac{3}{2}, \infty\right)$ <i>or</i> $x \neq 1, \frac{3}{2}$
5. $(-\infty, \infty)$	6. $(-\infty, -5) \cup (-5, 6) \cup (6, \infty)$ <i>or</i> $x \neq -5, 6$
7. $[-7, \infty)$	8. $(-\infty, \infty)$
9. $(-\infty, \infty)$	10. $f(x) = \begin{cases} x^2 + 3, & x \leq 1 \\ -x + 4, & x > 1 \end{cases}$ $(-\infty, 1) \cup (1, \infty)$ <i>or</i> $x \neq 1$
11. $(-\infty, 5) \cup (5, \infty)$ <i>or</i> $x \neq 5$	12. $[5, \infty)$

Continuity - Key

In problems 13-14, graph the function and determine the continuity

<p>13.</p>  <p>$(-\infty, -3) \cup (-3, \infty)$ or $x \neq -3$</p>	<p>14.</p>  <p>$(-\infty, -6) \cup (-6, \infty)$ or $x \neq -6$</p>
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In problems 15-18, determine the discontinuities and indicate if they are removable.

<p>15. $x = 2, non - removable$ $x = -2, non - removable$</p>	<p>16. $x = -3, non - removable$ $x = -2, removable$</p>
<p>17. $x = 1, non - removable$ $x = -1, non - removable$</p>	<p>18. $x = 8, non - removable$ $x = -4, removable$</p>