Precalc15.1

Calculate limits algebraically
Evaluate limits using a calculator

continuous

discontinuous

limit

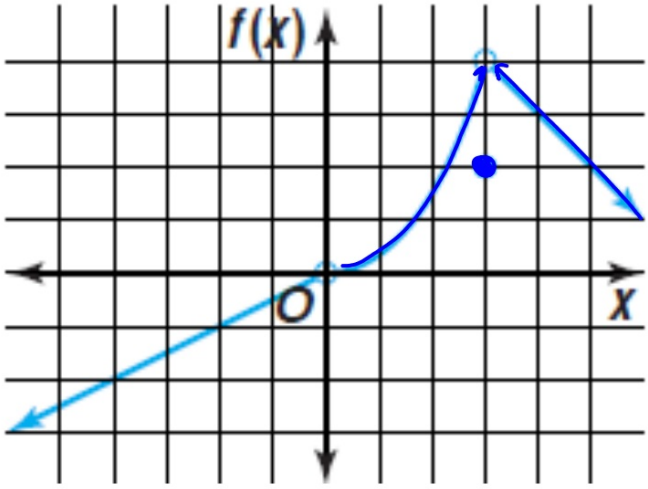
temp probe cooling curve

Use the graph of $y = f(x)$ to find each value.

12. $\lim_{x \to -2} f(x)$ and $f(-2)$ $= -1$ $= -1$

13. $\lim_{x \to 0} f(x)$ and $f(0)$ $= 0$ $-$ undef

14. $\lim_{x \to 3} f(x)$ and $f(3)$ 4 $= 2$



Evaluate each limit.

15. $\lim_{x \to 2} (-4x^2 - 3x + 6)$

16. $\lim_{x \to -1} (-x^3 + 3x^2 - 4)$

1. direct substitution
2. factor/cancel
3. graph/table

reminder: radians

17. $\lim_{x \to \pi} \frac{\sin x}{x} = \frac{\sin \pi}{\pi} = \frac{0}{\pi} = 0$

18. $\lim_{x \to 0} (x + \cos x)$

$0 + 1 = 1$

$=$