ex. 12 $f(x) = 4x^{5/4} - 8x^{1/4}$ on $[0, 4]$

$f'(x) = 5x^{1/4} - 2x^{-3/4} = \frac{x^{3/4}}{x^{3/4}} \cdot \frac{5x^{1/4}}{1} - \frac{2}{x^{3/4}}$

$f'(x) = \frac{5x-2}{x^{3/4}}$

crit #'s: $x = 0$ $x = \frac{2}{5}$

$f(0) = 0$

$f(\frac{2}{5}) \approx -5.0897$ abs. min

$f(4) \approx 11.3137$ abs. max

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ex. 13 ☆ $f(x) = x^3 - 5x + 3\sin x^2$ on $[-2, 2.5]$

$f'(x) = 3x^2 - 5 + 3\cos x^2 (2x)$

$f'(x) = 3x^2 - 5 + 6x\cos x^2$

crit. #'s

$f(-1.2641) = 7.3$ abs. max

$f(.6745) = -1.7$

$f(1.2267) = -1.3$

$f(2.0183) = -4.3$ abs. min.

$f(-2) = -.3$

$f(2.5) = 3.0$

p. 274-276			
1-25 odd, 31-43 odd, 47-50, 65			