

Name : _____

Score : _____

Teacher : _____

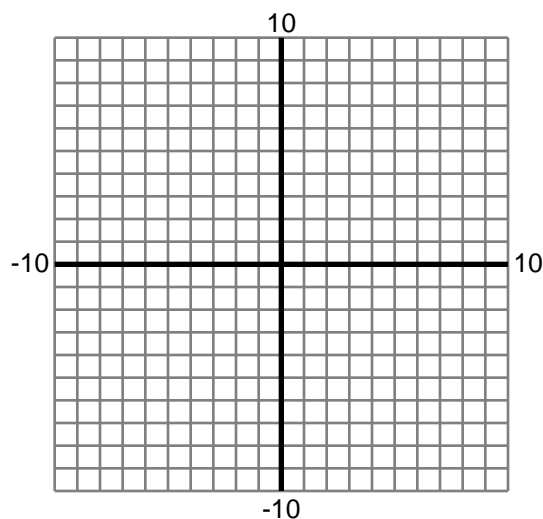
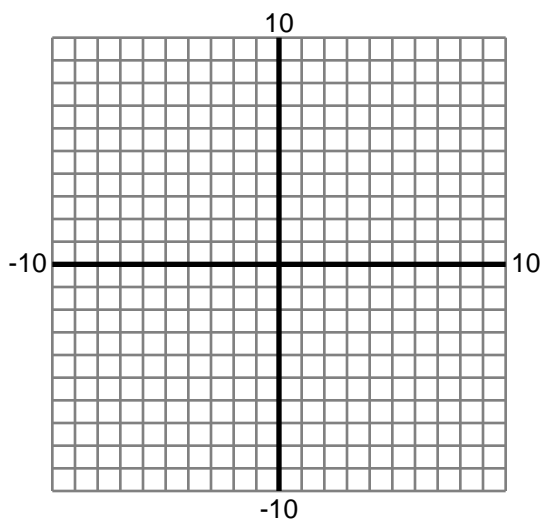
Date : _____

Horizontal Tangents

Graph the function. Find and draw the horizontal tangents. Round to two decimals if necessary.

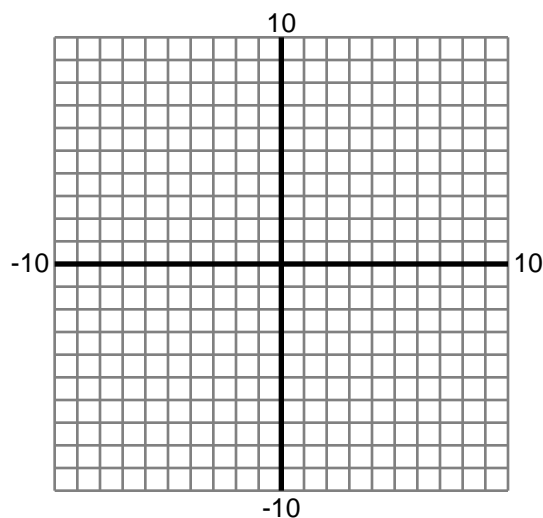
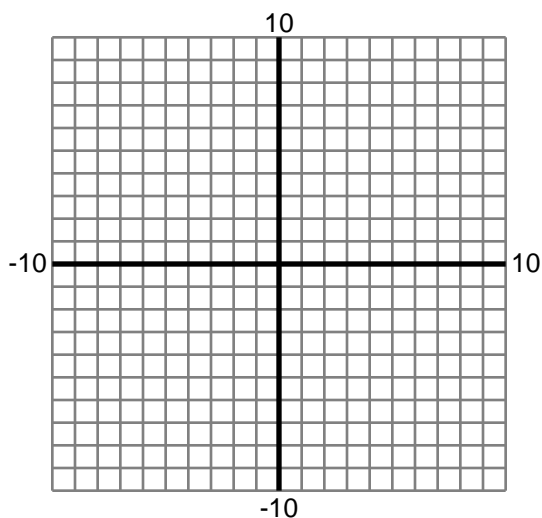
1) $y = \sin\left(\frac{-1}{4}x - 1\right) - 3$

2) $y = 2\sec\left(\frac{-1}{3}x + 3\right) + 2$



3) $y = -\frac{1}{12}x^3 + \frac{3}{4}x^2 - \frac{9}{4}x$

4) $y = -\frac{1}{3}x^3 + 3x^2 - 8x$



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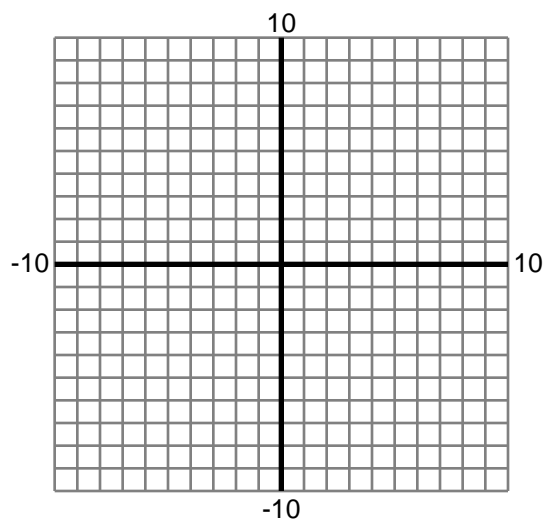
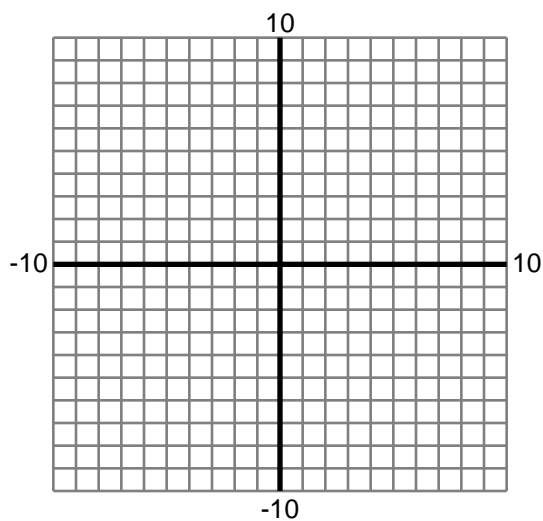
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Horizontal Tangents

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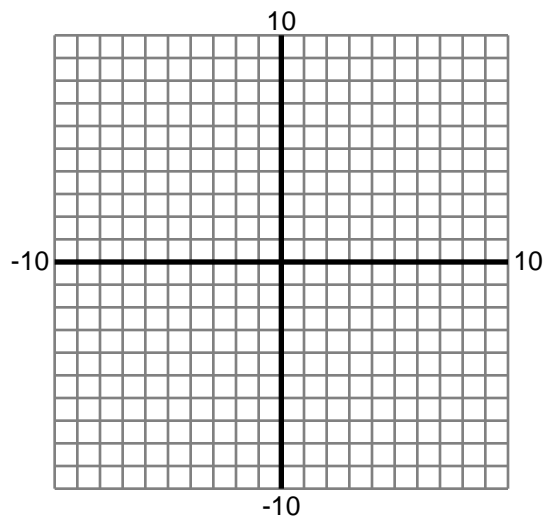
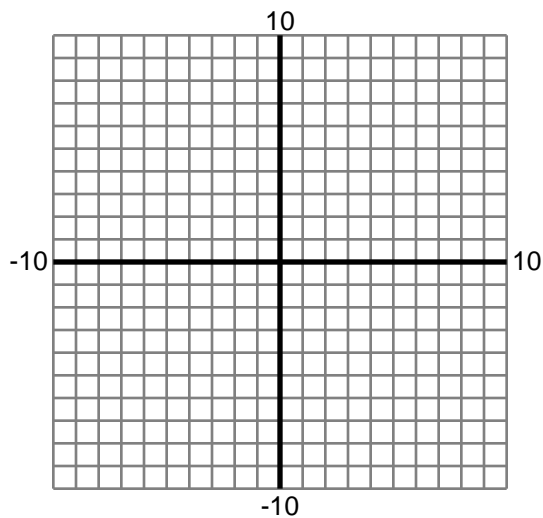
5) $y = \frac{1}{x} + \frac{x}{4} - 2$

6) $y = -\cos\left(\frac{1}{2}x - 3\right) + 3$



7) $y = \frac{1}{4}x^2 + \frac{5}{2}x$

8) $y = \frac{x^2}{2(x-3)}$



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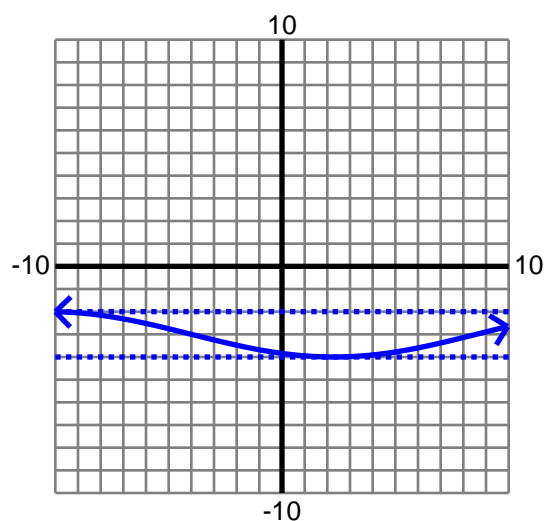
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Horizontal Tangents

Graph the function. Find and draw the horizontal tangents. Round to two decimals if necessary.

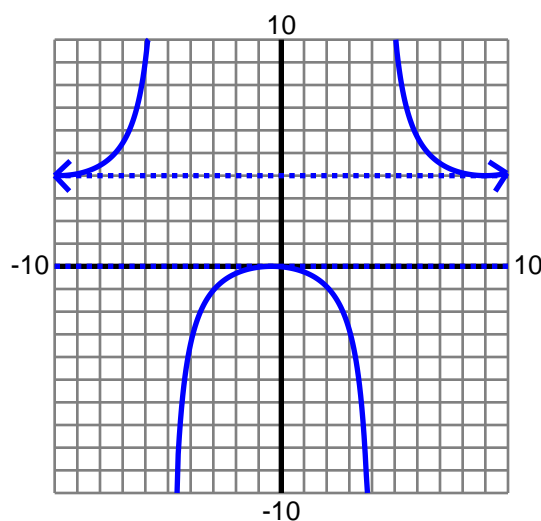
1) $y = \sin\left(\frac{-1}{4}x - 1\right) - 3$

$x = -10.283 + 4n\pi$, where n is any integer



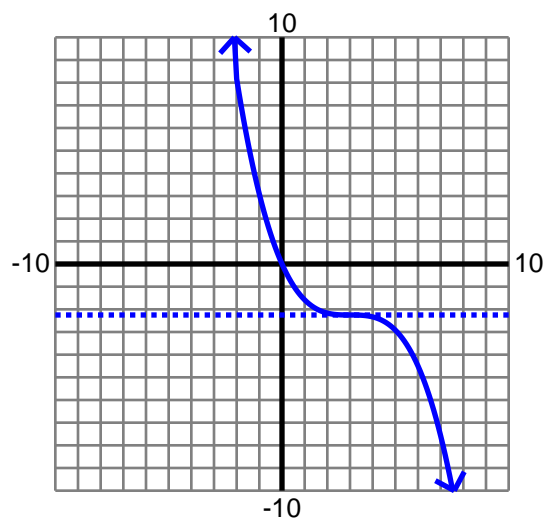
2) $y = 2\sec\left(\frac{-1}{3}x + 3\right) + 2$

$x = 9 + 3n\pi$, where n is any integer



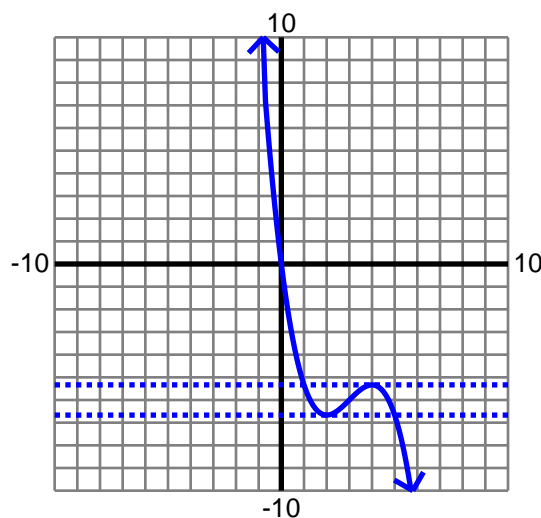
3) $y = -\frac{1}{12}x^3 + \frac{3}{4}x^2 - \frac{9}{4}x$

$x = 3$



4) $y = -\frac{1}{3}x^3 + 3x^2 - 8x$

$x = 2, 4$



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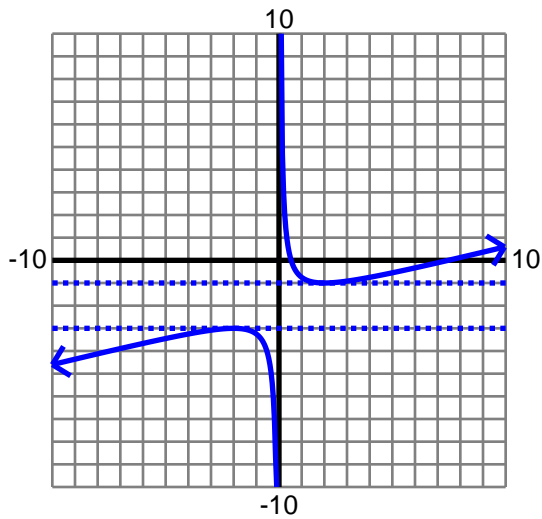
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Horizontal Tangents

Graph the function. Find and draw the horizontal tangents. Round to two decimals if necessary.

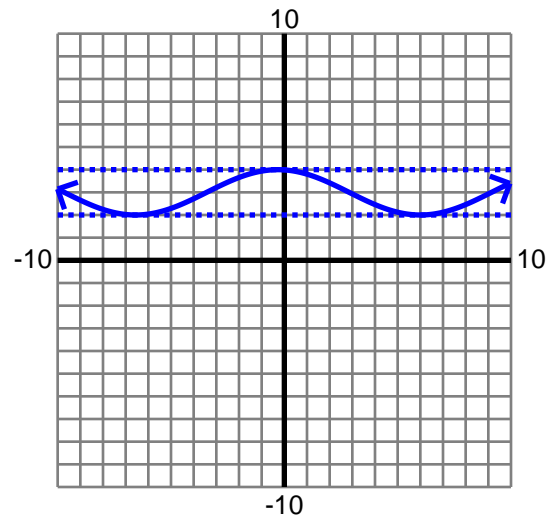
5) $y = \frac{1}{x} + \frac{x}{4} - 2$

$x = -2, 2$



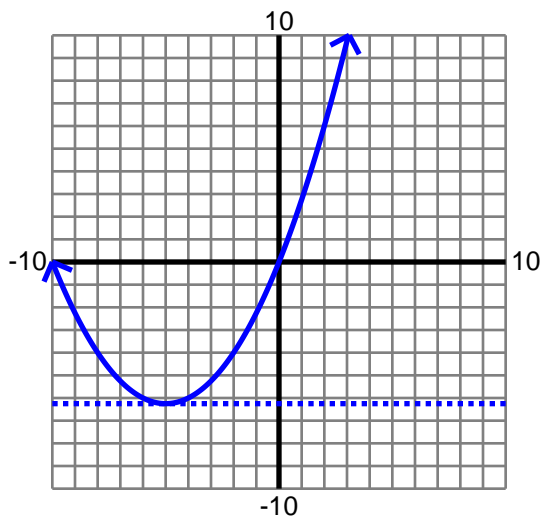
6) $y = -\cos\left(\frac{1}{2}x - 3\right) + 3$

$x = 6 + 2n\pi$, where n is any integer



7) $y = \frac{1}{4}x^2 + \frac{5}{2}x$

$x = -5$



8) $y = \frac{x^2}{2(x-3)}$

$x = 0, 6$

