

Name : _____

Score : _____

Teacher : _____

Date : _____

Area Under a Curve

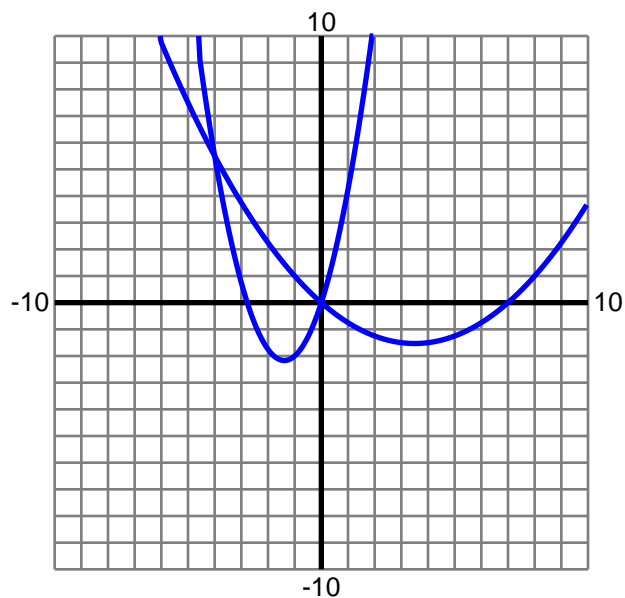
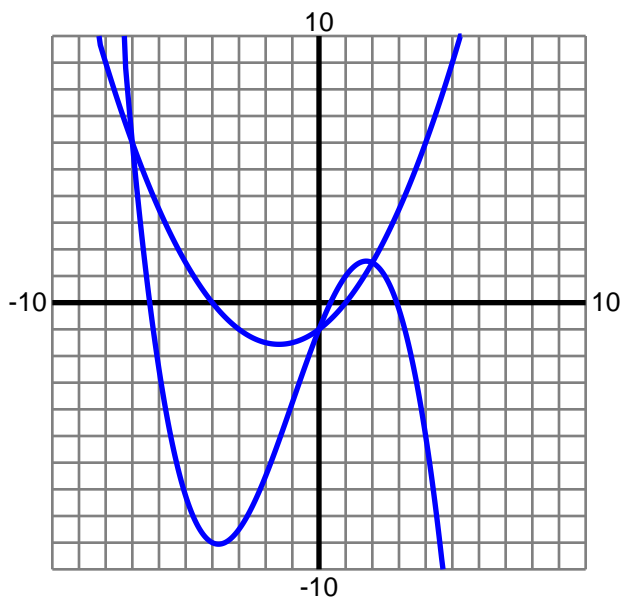
Shade the area enclosed by the curves. Find the area, rounded to two decimals.

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

$y = -\frac{1}{8}x^3 - \frac{3}{8}x^2 + \frac{5}{2}x - 1$

2) $y = \frac{1}{8}x^2 - \frac{7}{8}x$

$y = \frac{9}{8}x^2 + \frac{25}{8}x$

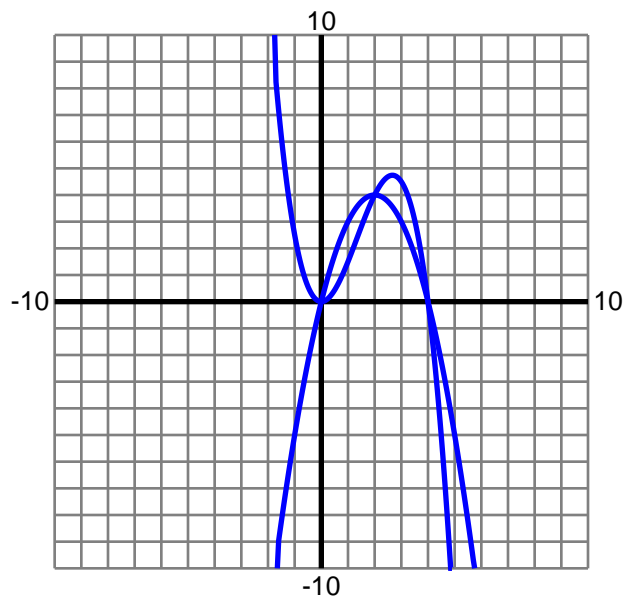
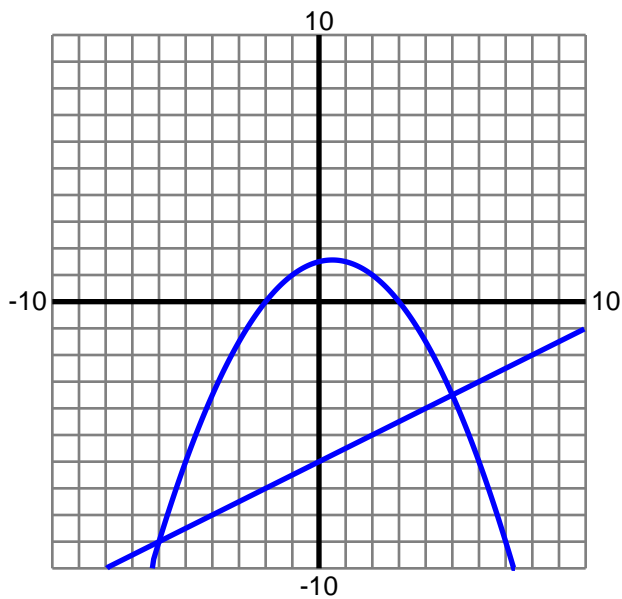


3) $y = -\frac{1}{4}x^2 + \frac{1}{4}x + \frac{3}{2}$

$y = \frac{1}{2}x - 6$

4) $y = -x^2 + 4x$

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



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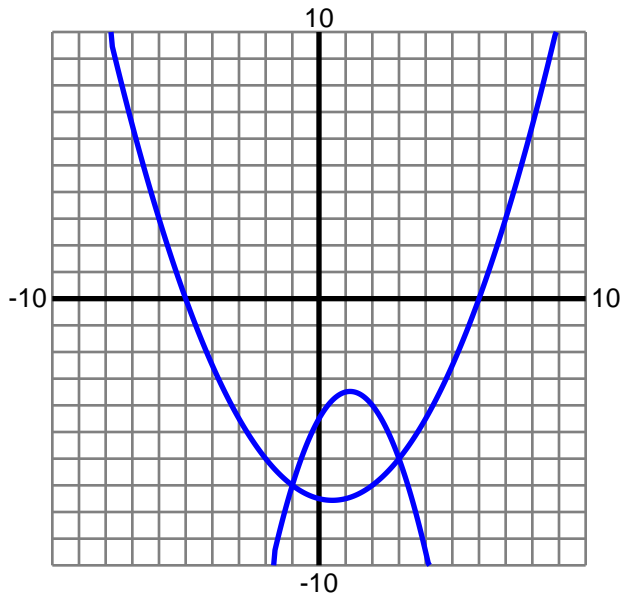
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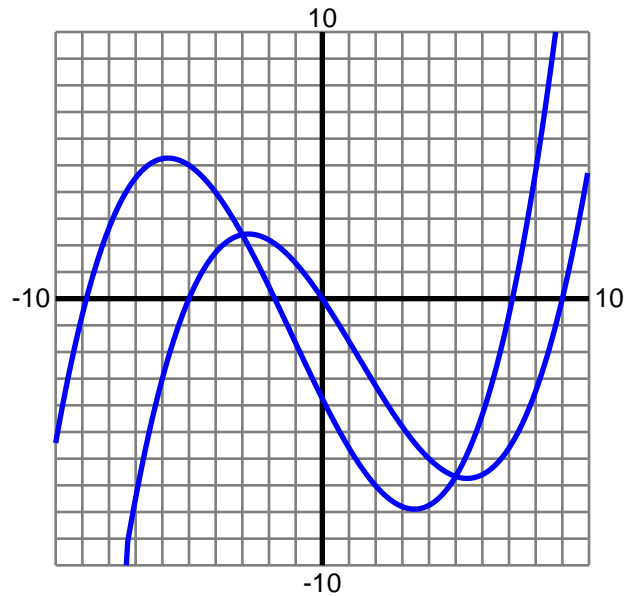
Area Under a Curve

Shade the area enclosed by the curves. Find the area, rounded to two decimals.

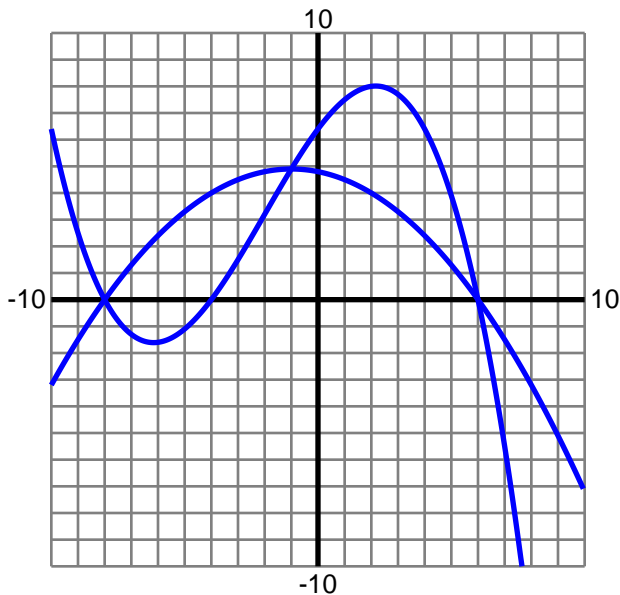
5) $y = \frac{1}{4}x^2 - \frac{1}{4}x - \frac{15}{2}$
 $y = -\frac{3}{4}x^2 + \frac{7}{4}x - \frac{9}{2}$



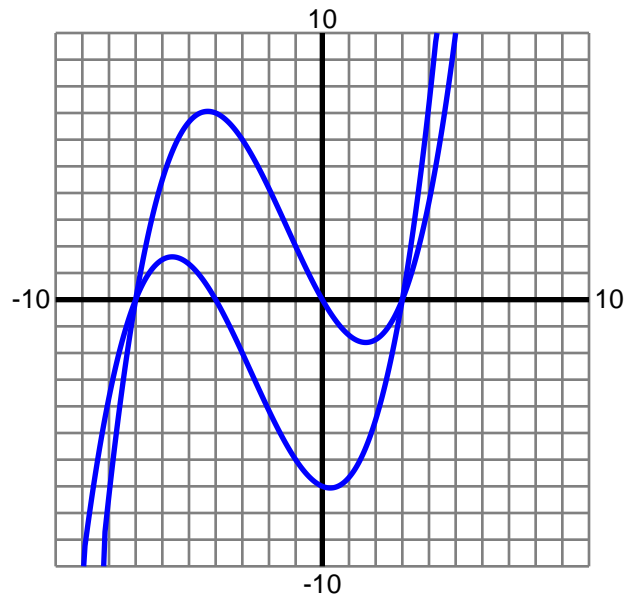
6) $y = \frac{1}{30}x^3 - \frac{2}{15}x^2 - \frac{3}{2}x$
 $y = \frac{1}{30}x^3 + \frac{7}{60}x^2 - 2x - \frac{15}{4}$



7) $y = -\frac{1}{30}x^3 - \frac{1}{5}x^2 + \frac{4}{3}x + \frac{32}{5}$
 $y = -\frac{1}{10}x^2 - \frac{1}{5}x + \frac{24}{5}$



8) $y = \frac{1}{12}x^3 + \frac{1}{3}x^2 - \frac{7}{4}x$
 $y = \frac{1}{12}x^3 + \frac{2}{3}x^2 - \frac{5}{12}x - 7$



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Area Under a Curve

Shade the area enclosed by the curves. Find the area, rounded to two decimals.

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

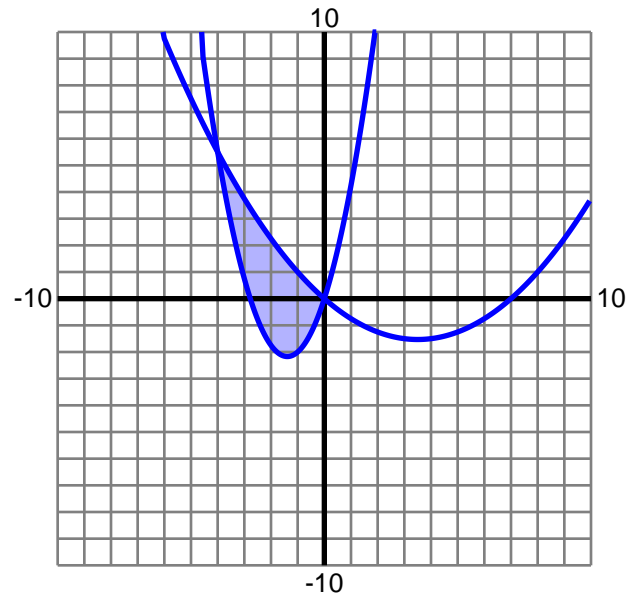
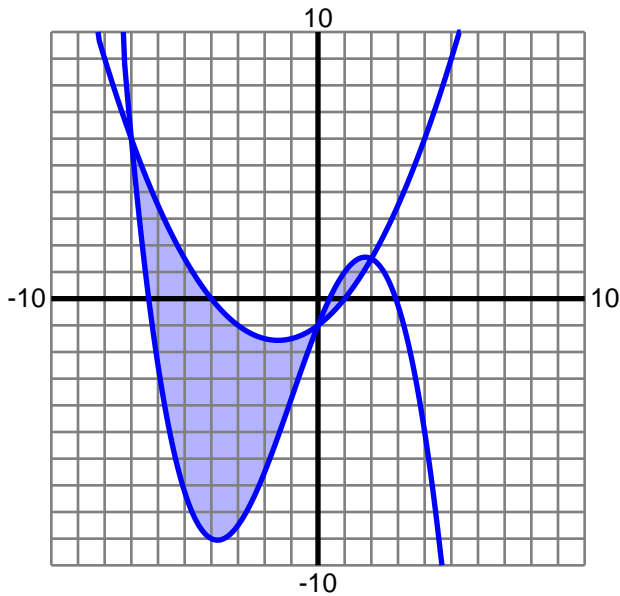
$y = -\frac{1}{8}x^3 - \frac{3}{8}x^2 + \frac{5}{2}x - 1$

Area:
40.64

2) $y = \frac{1}{8}x^2 - \frac{7}{8}x$

$y = \frac{9}{8}x^2 + \frac{25}{8}x$

Area:
10.67



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

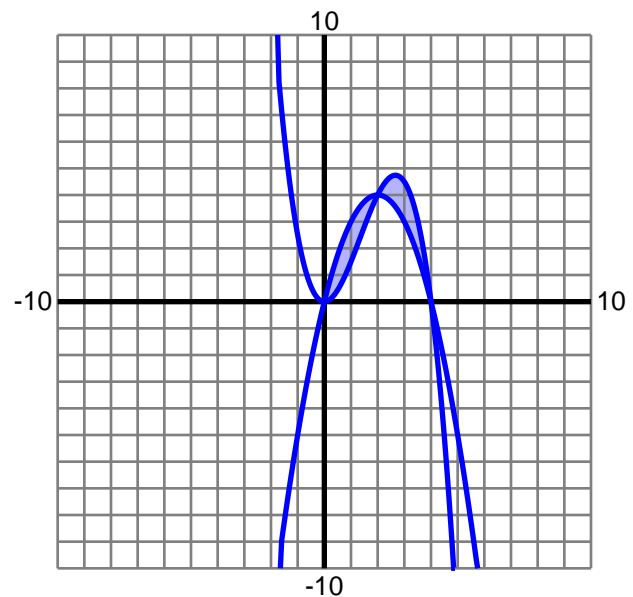
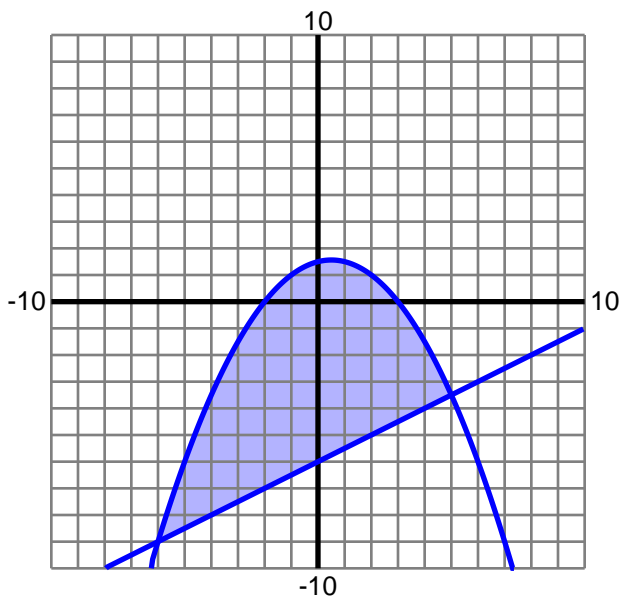
$y = \frac{1}{2}x - 6$

Area:
55.46

4) $y = -x^2 + 4x$

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

Area:
4



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Area Under a Curve

Shade the area enclosed by the curves. Find the area, rounded to two decimals.

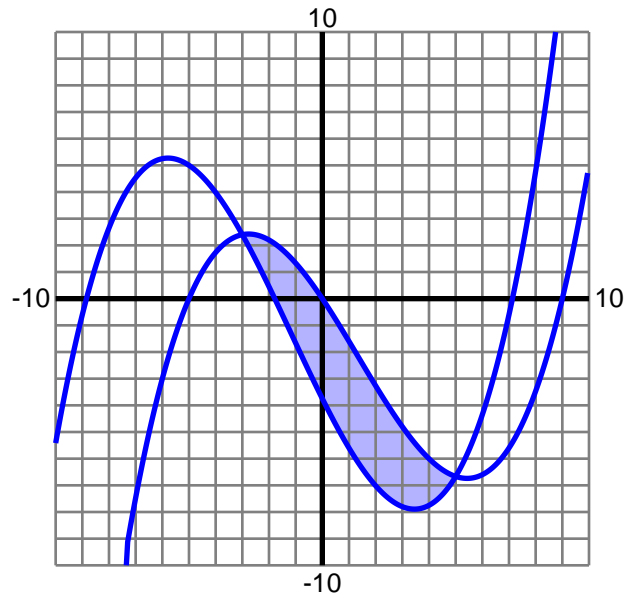
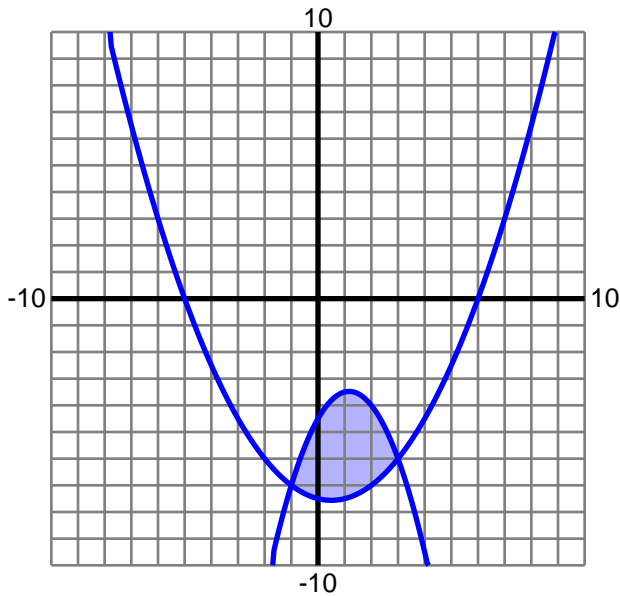
5) $y = \frac{1}{4}x^2 - \frac{1}{4}x - \frac{15}{2}$
 $y = -\frac{3}{4}x^2 + \frac{7}{4}x - \frac{9}{2}$

Area:
10.67

6) $y = \frac{1}{30}x^3 - \frac{2}{15}x^2 - \frac{3}{2}x$

$y = \frac{1}{30}x^3 + \frac{7}{60}x^2 - 2x - \frac{15}{4}$

Area:
21.33



7) $y = -\frac{1}{30}x^3 - \frac{1}{5}x^2 + \frac{4}{3}x + \frac{32}{5}$
 $y = -\frac{1}{10}x^2 - \frac{1}{5}x + \frac{24}{5}$

Area:
40.02

8) $y = \frac{1}{12}x^3 + \frac{1}{3}x^2 - \frac{7}{4}x$

$y = \frac{1}{12}x^3 + \frac{2}{3}x^2 - \frac{5}{12}x - 7$

Area:
55.56

