

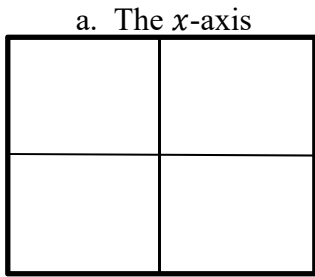
11.3 Solids of Revolution (Washers)

Calculus

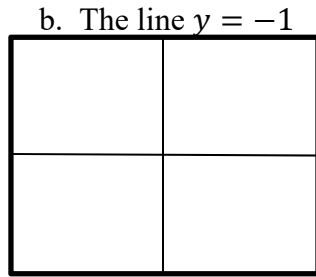
Name: _____

1. Sketch the graph and find the area of the region bounded by $y = (x - 3)^2 - 5$ and $y = -1$.
Use a calculator to help you with all the crazy fractions!

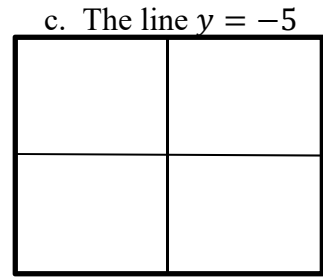
Set up the integral to find the volume when revolving it about the given line. DO NOT EVALUATE!



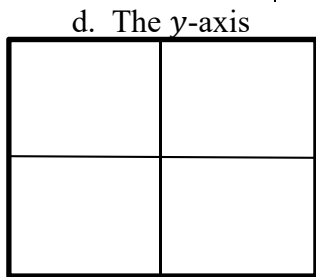
$R =$
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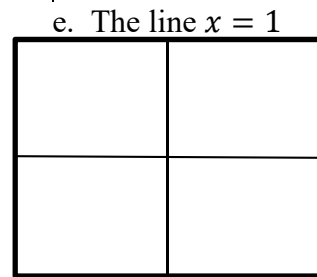
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$R =$
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$R =$
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$R =$
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Answers to 11.3 CA #2

$1. A = \int_1^5 -1 - [(x - 3)^2 - 5] dx = \frac{32}{3}$	$2a. V = \pi \int_1^5 [(x - 3)^2 - 5]^2 - 1 dx$
$2b. V = \pi \int_1^5 [(x - 3)^2 - 4]^2 dx$	$2c. V = \pi \int_1^5 16 - (x - 3)^4 dx$
$2d. V = \pi \int_{-5}^{-1} (\sqrt{y + 5} + 3)^2 - (-\sqrt{y + 5} + 3)^2 dy$	$2e. V = \pi \int_{-5}^{-1} (\sqrt{y + 5} + 2)^2 - (-\sqrt{y + 5} + 2)^2 dy$