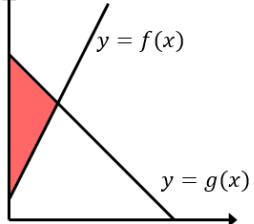
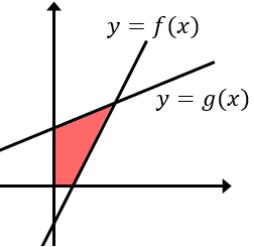
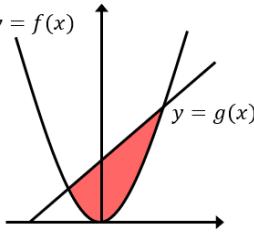
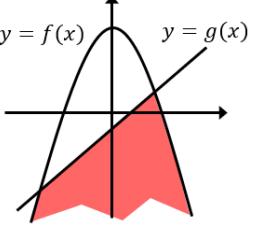
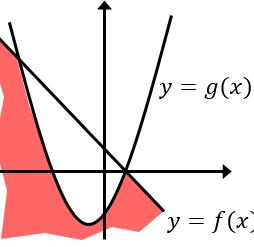
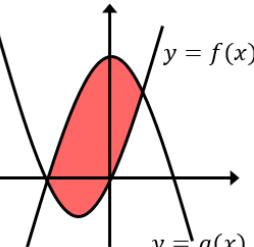


## Fill in the Blanks

## Graphical Inequalities and Regions

<b><math>f(x)</math> and <math>g(x)</math></b>	<b>Sketch of <math>y = f(x)</math> and <math>y = g(x)</math></b>	<b>Coordinates of intersection(s)</b>	<b>Solutions to <math>f(x) \geq g(x)</math></b>	<b>Shade the region given by:</b>
$f(x) = 3x + 1$ $g(x) = 5 - x$		(1, 4)	$x \geq 1$	$y \geq 3x + 1$ $y \leq 5 - x$ and $x \geq 0$
$f(x) = 2x - \frac{1}{2}$ $g(x) = \frac{1}{3}x + 2$		$\left(\frac{3}{2}, \frac{5}{2}\right)$	$x \geq \frac{3}{2}$	$y \geq 2x - \frac{1}{2}$ $y \leq \frac{1}{3}x + 2$ $x \geq 0$ and $y \geq 0$
$f(x) = x^2$ $g(x) = x + 6$		(-2, 4) and (3, 9)	$x \geq 3$ or $x \leq -2$	$y \geq x^2$ and $y \leq x + 6$
$f(x) = 1 - x^2$ $g(x) = x - 1$		(-2, -3) and (1, 0)	$-2 \leq x \leq 1$	$y \leq 1 - x^2$ and $y \leq x - 1$
$f(x) = 4 - 2x$ $g(x) = x^2 + x - 6$		(2, 0) and (-5, 14)	$x \leq -5$ or $x \geq 2$	$y \leq 4 - 2x$ and $y \leq x^2 + x - 6$
$f(x) = 4 - x^2$ $g(x) = 2x^2 + 4x$		(-2, 0) and $\left(\frac{2}{3}, \frac{32}{9}\right)$	$-2 \leq x \leq \frac{2}{3}$	$y \leq 4 - x^2$ and $y \geq 2x^2 + 4x$