4.5 Graphing Linear Equations in Standard Form

Use the graph to determine the *x*- and *y*-intercepts.



Graph the linear equations using intercepts. Make sure you label the number of the problem next to the graph of the linear equation.

3)	4x + y = 8	[x					
	x-intercept	y-intercept							- 8						
		-							-6						
		-	-	_		-	-		-4	\vdash	_				
		-							-2						
4)	3x - 2y = 12	-	•	-8	-6		-4	-2	0		2	4	6	8	x
.,				0			-		2					0	
	x-intercept	y-intercept	+	_		+	-			\square	_				
		-				-	-		4						\square
		-							6						
		-	+	_		+	-		8	\vdash					
		[ł					
-		r								A 1/					
5)	2x - 3y = 6	-	+	_		+	+		-8	▲ y	-				
	x-intercept	y-intercept							-8						
		-							-6						
		-	-			+	+		+4	\vdash					
		-	_			_			-2						
		-	•	-8	-6		-4	-2			2	4			
6)	5x - 3y = 15	-		-8	-6		-4	-2	0		2	4	6	8	x
	x-intercept	y-intercept	+	_		+	-			\square	_				\square
		,							4						
		-							6						
		-							8						
										ł					

- 7) You have two jobs. You earn \$8 for each hour *x* that you work as a restaurant host and \$6 for each hour *y* that you work as a hair washer. Your earnings for the pay period are \$144.
 - a) Write an equation in standard form that models your earnings.
 - b) Find the *x* and *y*-intercepts.



- c) Graph the equation.
- d) You worked 10 hours as a hair washer. How many hours did you work as a host?

- 8) Your family is on a ski vacation. Lift tickets for the family cost \$80 per day. Snowboard rentals cost \$40 per day. You purchase lift tickets for *x* days and snowboard rentals for *y* days and spend \$480.
 - a) Write an equation in standard form that models your earnings.
 - b) Find the *x* and *y*-intercepts.



- c) Graph the equation.
- d) You rent snowboards for 2 days. How many days did you purchase lift tickets?