FSAP 10 Name:_____

Different Forms of the Line

1. If given a line in standard form, how do you re-write this same line in slope-intercept form?
2. Re-write $2x - 3y = 12$ in slope-intercept form. What is the line's slope? What is its $y$-intercept?
3. $y = mx + b$ is called slope-intercept form. What $y$ value do you get if you let $x = 0$. What does this confirm about $b$?
4. Remember you only need two points to graph a line. Graph $3x - 2y = 6$ by first finding the $x$-intercept and the $y$-intercept. Explain why this might be considered easier than finding the slope and $y$-intercept.
5. A line has slope -2 and passes through $A(3, -4)$. What is the equation of this line in standard form?
6. If you know a line has slope 3 and passes through the point $A(2, -5)$ why might some people be tempted to give the equation of the line as $y = 3x - 5$? What is the actual equation of the line in slope-intercept form.
7. What are the benefits of each form of the line? Make a table.