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Example 4. If $f(x) = \sqrt{x}$ and $g(x) = x^2 - 3x + 2$, what

is the domain of the function $\frac{f(x)}{g(x)}$?

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Example 5. To measure speed, we take distance travelled and divide it by time. What if we tried to measure the speed of a jet by using a stopwatch over 100 yards?

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Definition 8. The slope of the line y = mx + b is equal to m. It measures the change in y if x is increased by one. If one is not given the slope explicitly, it can be computed by $m = \frac{y_2 - y_1}{x_2 - x_1}$ where (x_1, y_1) and (x_2, y_2) are

Example 9. Sketch some lines with slope 1, -1, 2, -3, $\frac{1}{2}$ and $\frac{-2}{3}$.

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The different descriptions we will use are as follows, listed from simplest to most complicated. We translate each to the standard form, and give an example. • Standard, slope-intercept form: y = mx + b.

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Example 11. Find the equations - in slope-intercept form - of the following lines:

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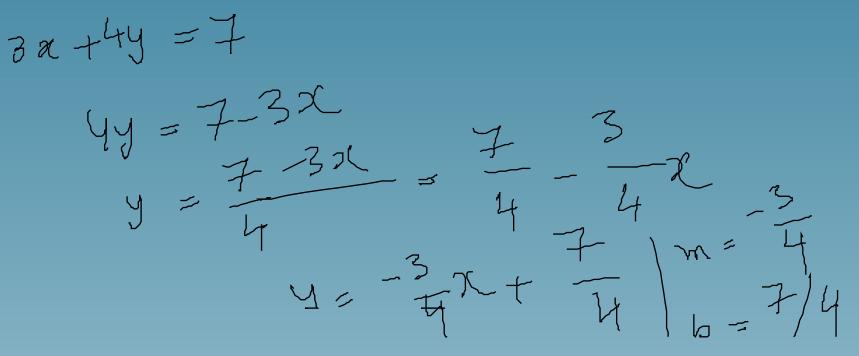
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($$

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Two lines are perpendicular if they intersect at ninety degree angles.

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