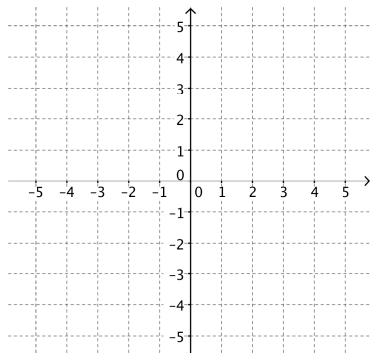


Algebra

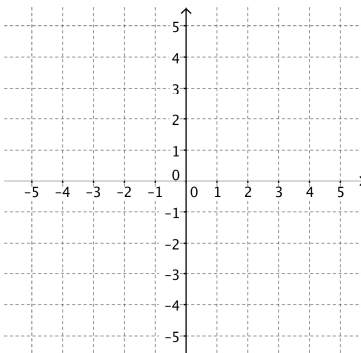
Equations & Inequalities

(Q1.) Graph the following equations...

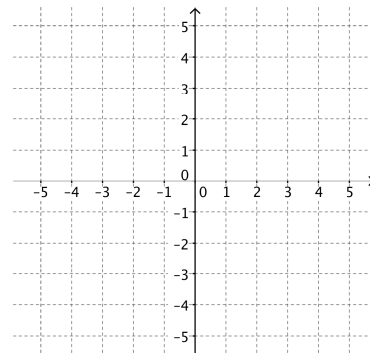
(a) $y = \frac{-2}{3}x + 4$



(b) $y = -2$



(c) $6x - 2y = 2$



(Q2.) Consider the linear equation $3x - 2y = 60$. Determine the following...

(a) x-intercept _____

(b) y-intercept _____

(c) slope _____

(d) equation (s.i. form) _____

(e) parallel slope m_{\parallel} _____

(f) perpendicular slope m_{\perp} _____

(Q3.) Find the equation of the line in **slope-intercept form** that passes through $(1, 8)$ & $(-7, 3)$

(Q4.) Find the equation of the line in **slope-intercept form** that is **perpendicular** to $y = \frac{-2}{5}x + 19$ and contains the point $(20, 3)$

Algebra

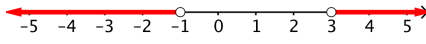
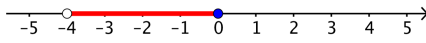
Equations & Inequalities

(Q1.) Solve $3x = 9 - \frac{1}{2}x$

(Q2.) Solve $\frac{2}{3}(6x + 15) = 2x - 4(x + 2) + 18$

(Q3.) Solve $12(3x + 6) - 7(2x - 6) = 2x - 26$

(Q4.) Fill in the following table

Inequalities	Graphs	Interval Notations
		
		$(-2, 3] \cup (6, \infty)$
$5 < x$		
		$[-1, 1] \cup (3, 6)$
		

(Q5.) **Solve** and write your solution in **interval notation** $8x - 2(3x - 5) \geq 4x + 9$

(Q6.) **Solve** and **graph** the solution for $3 \leq \frac{2x - 1}{5} < 7$

(Q7.) **Solve** and **graph** the solution for $2 - 5x < -18$ or $\frac{3}{2}x - 17 < -29$

(Q8.) 15% of what number is 360?

(Q9.) In investments, the interest you earn is the product of the principal (i.e. the money you put in) and the annual interest rate. If you earned \$24 after a year from an investment that offered you an annual interest rate of 0.6%, what was your principal?

(Q10.) A digital camera is on sale for \$119 after a 15% discount. What was the original price of the camera?

(Q11.) A 24-foot rope must be cut into three pieces. The longest piece will be twice as long as the shortest piece, and the medium-sized piece will be 4 feet longer than the shortest piece. Find the length of each piece of the rope.

(Q12.) Twice the sum of two consecutive odd integers is 328, what are the numbers?

(Q13.) If a number is increased by 12 and then divided by 4, the result is 5. What is the number?