COLLEGE ALGEBRA QUIZ

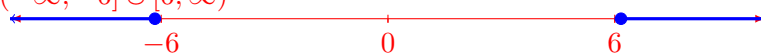(1) Solve $|x - 5| = 3$
Solution: $x = 3, 8$

(2) Solve $|2y + 7| = 13$
Solution: $y = -10, 3$

(3) Solve $|3x| \geq 18$ and write the solution set in interval notation. Then graph the solution set.
Solution:
$(-\infty, -6] \cup [6, \infty)$

(4) Solve $|4x + 3| < 27$ and write the solution set in interval notation. Then graph the solution set.
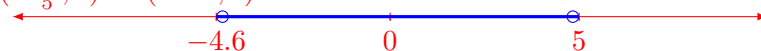Solution:
$(\frac{-15}{2}, 6)$ or $(-7.5, 6)$

(5) Solve $|1 - 5x| < 24$ and write the solution set in interval notation. Then graph the solution set.
Solution:
$(-\frac{23}{5}, 5)$ or $(-4.6, 5)$.

(6) Solve $|x + 6| \geq 2$ and write the solution set in interval notation. Then graph the solution set.
Solution:
$(-\infty, -8] \cup [-4, \infty)$