More problems for section 1.2 of *Essentials of Precalculus with Calculus Previews* by Zill and Dewar, 5e.

1. Solve for x.

a. $|2x+1| = 4$ b. $|2-4x| = 6$ c. $\left|\dfrac{x+1}{x-1}\right| = 3$

d. $|5x-12| = -4$ e. $|5x-12| = 0$ f. $\left|\dfrac{x-3}{2x}\right| = 5$

2. Solve for x. Write the solution set in interval form.

a. $|x+5| \geq 2$ b. $|2x+1| < 2$ c. $|3x+6| > 1$

d. $|4x+5| < 8$ e. $|5x+4| \geq 12$ f. $|3-2x| < 3$

g. $|5x+4| \geq -8$ h. $|5-2x| \geq 7$ i. $|7x+9| < -5$

Answers

1a. $x = 3/2$ or $-5/2$ 1b. $x = 2$ or -1 1c. $x = 2$ or $1/2$ 1d. no solutions 1e. $x = 12/5$ 1f. $x = -1/3$ or $3/11$ 2a. $(-\infty, -7] \cup [-3, \infty)$ 2b. $(-3/2, 1/2)$ 2c. $(-\infty, -7/3) \cup (-5/3, \infty)$ 2d. $(-13/4, 3/4)$ 2e. $(-\infty, -16/5] \cup [8/5, \infty)$ 2f. $(0, 3)$ 2g. $(-\infty, \infty)$ 2h. $(-\infty, -1] \cup [6, \infty)$ 2i. $\emptyset$