

- Identify the variable and write an inequality that describes each situation.
 - Tony is taller than 6 feet.
 - Rita will not take less than \$12,000 for the car.
 - The minimum speed on the freeway is 45 mph.
 - Julie can afford at most \$400 per month.
 - Fred must have at least a 3.2 grade point average.
 - Burt is no taller than 5 feet.
 - Three times a number, minus 5, is no more than 7.
 - Twice a number, increased by 1, is between -5 and 3 .
- Write the solution set in interval notation and graph it.
 - $x \leq -1$
 - $3 \leq x$
 - $-2 > x$
 - $x > 20$
- Solve each inequality. Express the solution set in interval notation and graph it.
 - $-2 - x \geq -1$
 - $\frac{x-3}{-5} < -2$
 - $5 - x < 1 - x$
 - $x \geq x$
 - $3x - (4 - 2x) < 5 - (2 - 5x)$
 - $-(9 + x) - 5 + 4x \geq 4$
 - $\frac{2}{3}(3x - 1) \geq \frac{3}{2}(2x - 3)$
 - $-\frac{1}{4}(p + 6) + \frac{3}{2}(2p - 5) < 10$
 - $-16 < 3x + 2 < -10$
 - $-1 \leq \frac{2x-5}{6} \leq 5$
 - $4 \leq -9x + 5 < 8$
- Jennifer is shopping for a new car. In addition to the price of the car, there is an 8% sales tax and a \$172 title and license fee. If Jennifer decides that she will spend less than \$10,000 total, then what is the price range for the car?
- Professor Jorgenson gives only a mid-term exam and a final exam. The semester average is computed by taking $\frac{1}{3}$ of the midterm exam score plus $\frac{2}{3}$ of the final exam score. The grade is determined from the semester average by using the grading scale given in the table. Stanley scored only 56 on the midterm, then for what range of scores on the final exam would he get a C or better in the course?

Grading	Scale
90–100	A
80–89	B
70–79	C
60–69	D
- Branford can be paid for his masonry work in one of two ways:
 Plan A: \$300 plus \$9.00 per hour;
 Plan B: Straight \$12.50 per hour.
 Suppose that the job takes n hours. For what values of n is plan B better for Branford?
- Lillian is about to invest \$20,000, part at 3% and the rest at 4%. What is the most that she can invest at 3% and still be guaranteed at least \$650 in interest per year?