

Solve the following system of equations

$$-3(-3x + 7y = -16)$$

$$-9x + 5y = 16$$

$$9x - 2y = 48$$

$$\frac{-16y}{-16} = \frac{64}{-16}$$

$$y = -4$$

$$-3x + 7(-4) = -16$$

$$-3x + -28 = -16$$

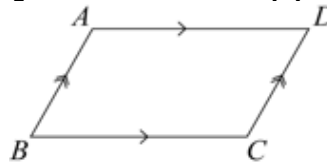
$$+28 \quad +28$$

$$\frac{-3x}{-3} = \frac{12}{-3}$$

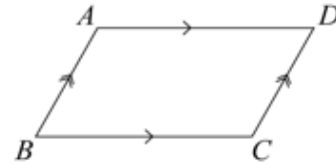
$$x = -4$$

Investigation 5.4 - on sketchpad

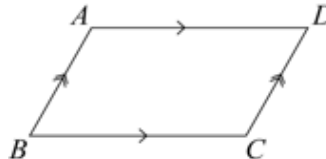
Parallelogram Opposite Angles Conjecture: the opposite angles of a parallelogram are congruent



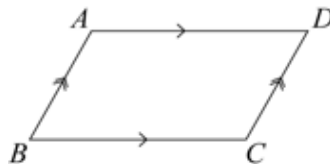
Parallelogram Consecutive Angles Conjecture: the consecutive angles of a parallelogram are supplementary



Parallelogram Opposite Sides Conjecture: the opposite sides of a parallelogram are congruent

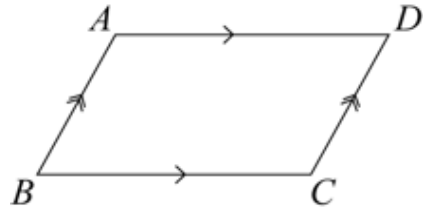


Parallelogram Diagonals Conjecture: the diagonals of a parallelogram bisect each other



Given: Parallelogram ABCD

Prove: $\angle B$ is congruent to $\angle D$



Parallelogram ABCD

Given

$$\angle B \cong \angle D$$

Parallelogram Opposite
Angles Conjecture