# Lesson 7.1 Practice: Translations and Vectors

School Launch · Geometry · Unit 7: Transformations · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

**1.** Translate $(2, -5)$ by the vector $\langle -2, -2 \rangle$. EASY

**2.** Translate $(-5, -4)$ by the vector $\langle 4, -4 \rangle$. EASY

**3.** Translate $(5, -6)$ by the vector $\langle 6, 6 \rangle$. EASY

**4.** Translate $(-4, -2), (4, 6), (4, -6)$ by the vector $\langle 6, -1 \rangle$. MEDIUM

**5.** Translate $(-6, -6), (-4, -2), (4, 4)$ by the vector $\langle 1, -2 \rangle$. MEDIUM

**6.** Translate $(-1, -2), (-4, 3), (5, -3)$ by the vector $\langle 7, 1 \rangle$. MEDIUM

**7.** Translate $(4, 4), (1, 5), (3, -6)$ by the vector $\langle -4, -5 \rangle$. MEDIUM

**8.** Translate $(-5, 3), (-4, -6), (5, -4)$ by the vector $\langle 3, -5 \rangle$. HARD

**9.** Translate $(-5, 5), (-1, -4), (3, 6)$ by the vector $\langle 4, -7 \rangle$. HARD

**10.** Translate $(-4, -1), (6, -2), (-1, 4)$ by the vector $\langle 7, -5 \rangle$. HARD