9.1 Translate Figures and Use Vectors

**Transformation**

Original called __________ (i.e. ΔABC)
New called __________ (i.e. ΔA’B’C’)

**Translation**

Draw ΔRST with vertices R(2, 2), S(5, 2), and T(3, -2). Find the image of each vertex after the translation \((x, y) \rightarrow (x + 1, y + 2)\). Graph the image using prime notation.

The image of \((x, y) \rightarrow (x + 4, y - 7)\) is P’Q’ with endpoints P’(-3, 4) and Q’(2, 1). Find the coordinates of the endpoints of the preimage.

**Isometry**

Transformation that preserves __________ and __________ __________.
A __________ transformation

**Translation Theorem**

A translation is an __________.
Vector $\overrightarrow{BC}$

Measurement with ___________ and ___________ (size)

Represented by an ___________ ___________

Component form (___________, ____________)

$\overrightarrow{BC} = (_____ , _____)

Name the vector and write its component form

The vertices of $\Delta LMN$ are $L(2, 2)$, $M(5, 3)$, $N(9, 1)$. Translate $\Delta LMN$ using vector $(-2,6)$.

Assignment: 576 #2-30 even, 34-40 even, 44, 48-54 even = 24