

⑥

Translation: slide/shift
left/right
up/down

Vertical Stretch : Graph becomes narrower.

Vertical Shrink : Graph becomes wider.

Reflection: flip $-f(x)$
over
X-axis
 $y=f(-x)$ over y-axis

⑦

$$|a| > 1$$

Vertical
Stretch

$$0 < |a| < 1$$

Vertical
Shrink

$a < 0$ Reflection (flip)

$a = 0$ Horizontal line

Positive

$$h > 0$$

Translation

Right

Negative

$$h < 0$$

Translation

left

$$h = 0$$

No left/right translation

Pos

$$k > 0$$

Trans.

Up

Neg

$$k < 0$$

Trans.

down

$$k = 0$$

No
Trans.