Time Scaling:

$$x(n) = \{1, 2, 3, 4, \underset{\uparrow}{5}, 4, 3, 2, 1\}$$

$$y(n) = x(an)$$

$$a = 2$$

$x(-4) = 1$

$x(-3) = 2$

$x(-2) = 3$

$x(-1) = 4$

$x(0) = 5$

$x(1) = 4$

$x(2) = 3$

$x(3) = 2$

$x(4) = 1$

$y(-4) = x(2 * -4) = x(-8) = 0$

$n = -3$; $y(-3) = x(2 \times -3) = x(-6) = 0$

$n = -2$; $y(-2) = x(2 \times -2) = x(-4) = 1$

$n = -1$; $y(-1) = x(2 \times -1) = x(-2) = 3$

$n = 0$; $y(0) = x(2 \times 0) = x(0) = 5$

$n = 1$; $y(1) = x(2 \times 1) = x(2) = 3$

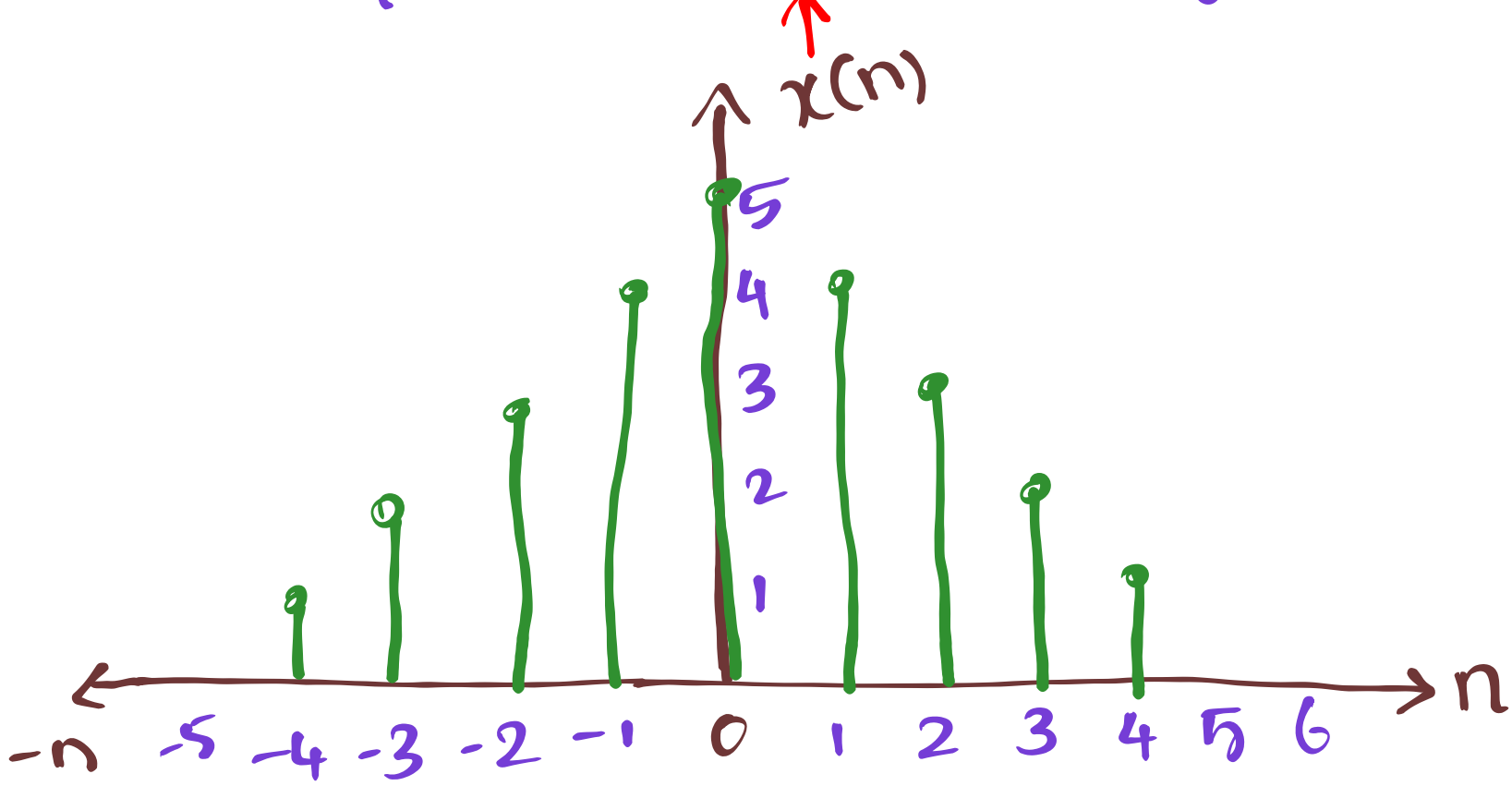
$n = 2 \; ; \; y(2) = x(2 \times 2) = x(4) = 1$

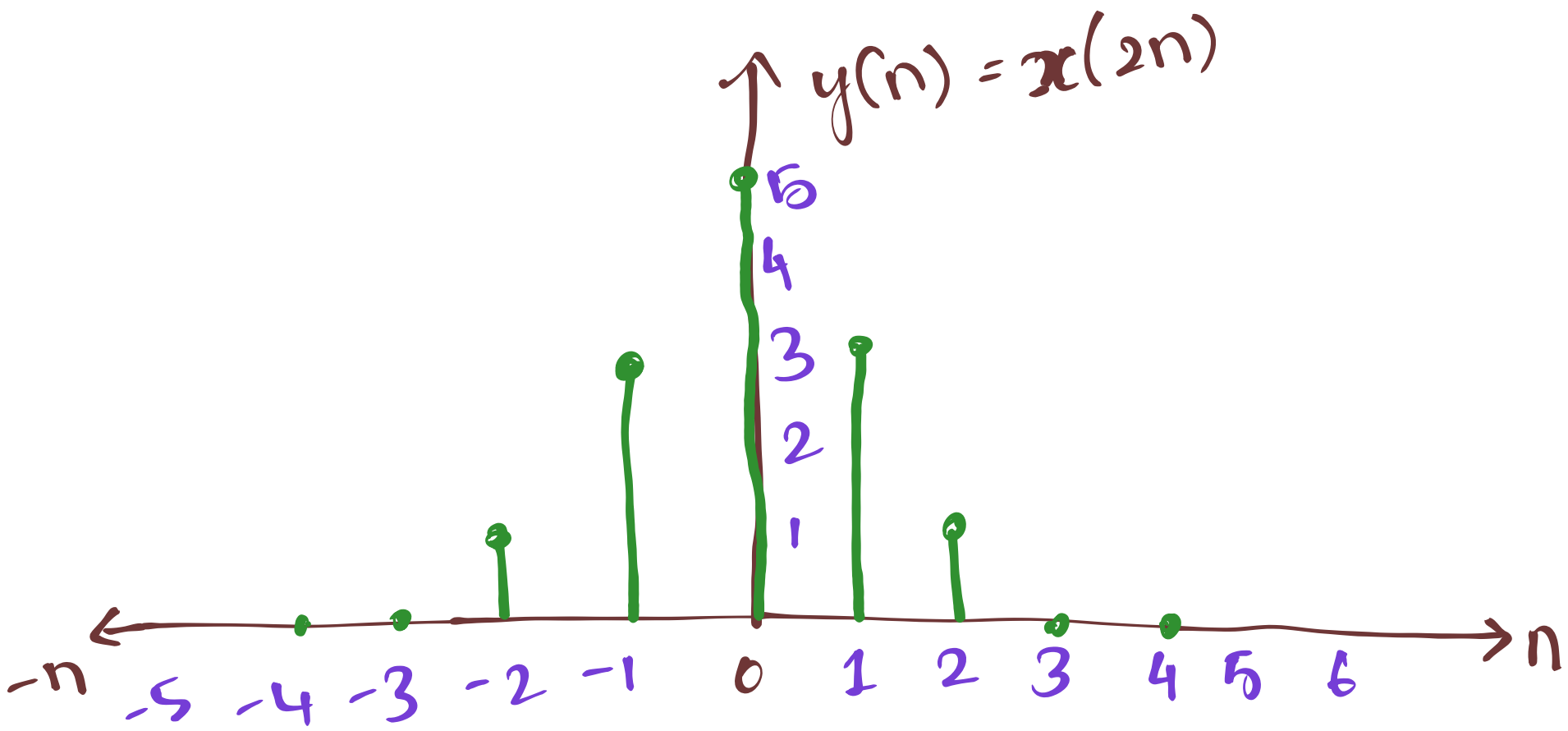
$n = 3 \; ; \; y(3) = x(2 \times 3) = x(6) = 0$

$n = 4 \; ; \; y(4) = x(2 \times 4) = x(8) = 0$

$y(n) = \{0, 0, \underset{\uparrow}{1}, 3, 5, 3, 1, 0, 0\}$

$x(n) = \{1, 2, 3, 4, \underset{\uparrow}{5}, 4, 3, 2, 1\}$





$y'(n) = x(n/2)$

$n = -4 ; y'(-4) = x(-4/2) = x(-2) = 3$

$n = -3 ; y'(-3) = x(-3/2) = x(-1.5) = 0$

$n = -2 ; y'(-2) = x(-2/2) = x(-1) = 4$

$n = -1 ; y'(-1) = x(-1/2) = x(-0.5) = 0$

$n = 0 ; y'(0) = x(0/2) = x(0) = 5$

$n = 1 ; y'(1) = x(1/2) = x(0.5) = 0$

$n = 2 ; y'(2) = x(2/2) = x(1) = 4$

$n = 3 ; y'(3) = x(3/2) = x(1.5) = 0$

$n = 4 ; y'(4) = x(4/2) = x(2) = 3$

$y'(n) = \{3, 0, 4, 0, \underset{\uparrow}{5}, 0, 4, 0, 3\}$