Mark's #2:

$f := x \to 4 + 8 \cdot x^2$

$$f := x \mapsto 4 + 8 \cdot x^2 \tag{1.1}$$

6 rectangles for 4.1 #2

$a := -1;\ b := 2;\ n := 6$

$$a := -1$$
$$b := 2$$
$$n := 6 \tag{1.2}$$

$xk := k \to -1 + \dfrac{k \cdot (b - a)}{n}$

$$xk := k \mapsto -1 + \frac{k \cdot (b - a)}{n} \tag{1.3}$$

$\dfrac{(b - a)}{n} \displaystyle\sum_{k=1}^{n} (f(xk(k)))$

$$43 \tag{1.4}$$

10 Rectangles

$n := 10$

$$n := 10 \tag{1.5}$$

$\dfrac{(b - a)}{n} \displaystyle\sum_{k=1}^{n} (f(xk(k)))$

$$\frac{1149}{50} \tag{1.6}$$

Victor's:

$f := x \to 3 + 4 \cdot x^2$

$$f := x \mapsto 3 + 4 \cdot x^2 \tag{2.1}$$

Victor's n = 6

$a := -1;\ b := 2;\ n := 6$

$$a := -1$$
$$b := 2$$
$$n := 6 \tag{2.2}$$

$xk := k \to -1 + \dfrac{k \cdot (b - a)}{n}$

$$xk := k \mapsto -1 + \frac{k \cdot (b - a)}{n} \tag{2.3}$$

$$\frac{(b-a)}{n}\sum_{k=1}^{n}(f(xk(k)))$$

$$\frac{49}{2} \tag{2.4}$$

Victor's n = 10

$n := 10$

$$n := 10 \tag{2.5}$$

$$\frac{(b-a)}{n}\sum_{k=1}^{n}(f(xk(k)))$$

$$\frac{1149}{50} \tag{2.6}$$