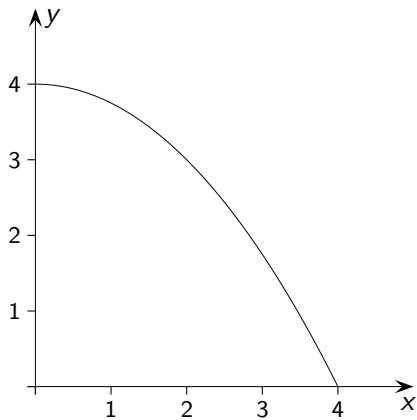


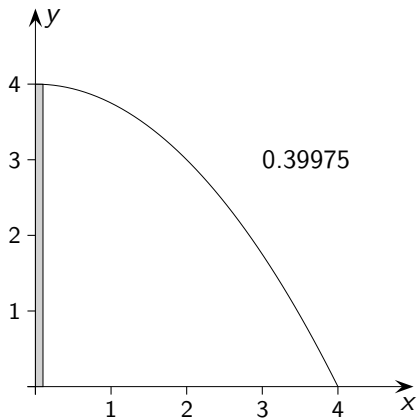
# Extremwertaufgaben

G.Roofs

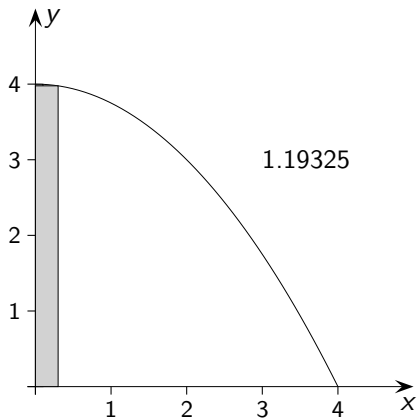
$$f(x) = -\frac{1}{4}x^2 + 4$$



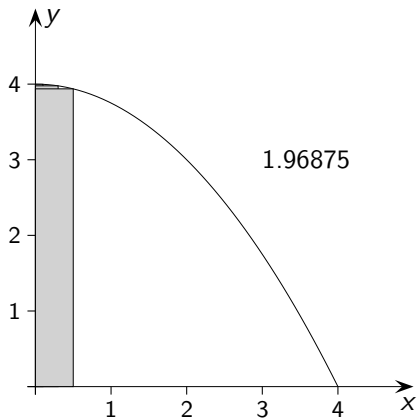
$$f(x) = -\frac{1}{4}x^2 + 4$$



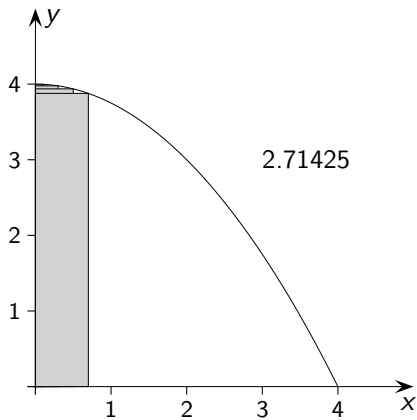
$$f(x) = -\frac{1}{4}x^2 + 4$$



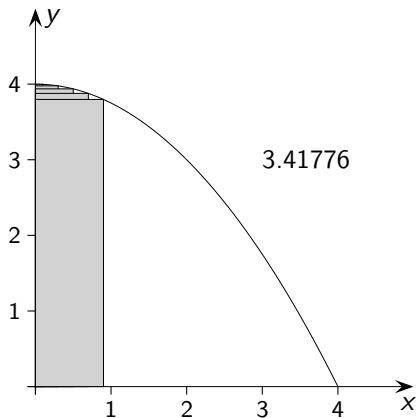
$$f(x) = -\frac{1}{4}x^2 + 4$$



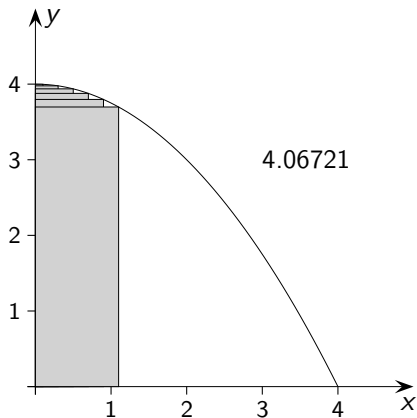
$$f(x) = -\frac{1}{4}x^2 + 4$$



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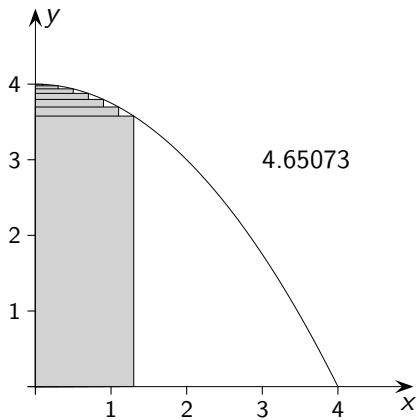


$$f(x) = -\frac{1}{4}x^2 + 4$$

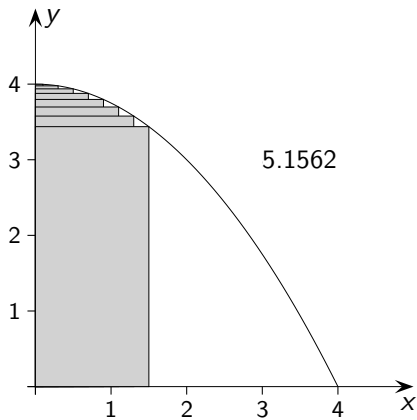




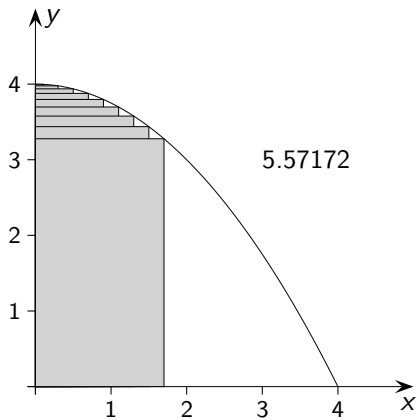
$$f(x) = -\frac{1}{4}x^2 + 4$$



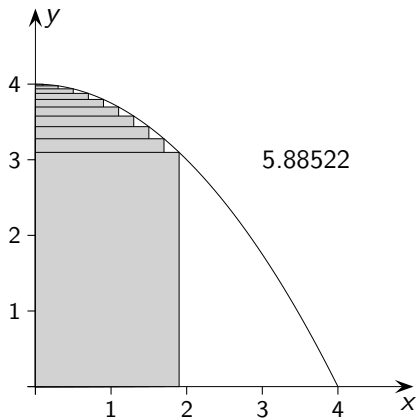
$$f(x) = -\frac{1}{4}x^2 + 4$$



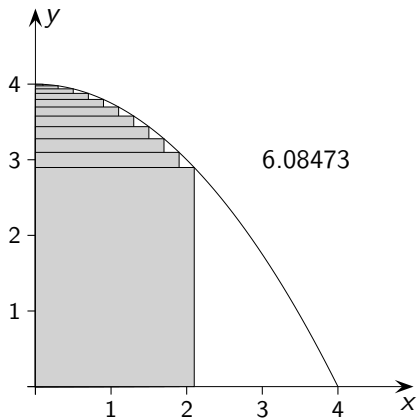
$$f(x) = -\frac{1}{4}x^2 + 4$$



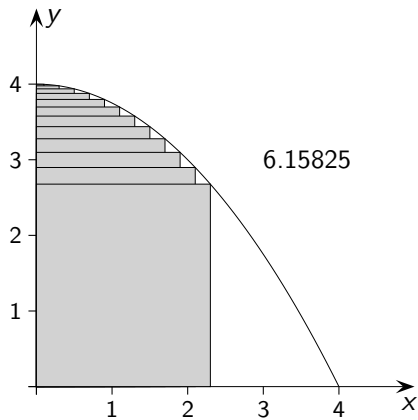
$$f(x) = -\frac{1}{4}x^2 + 4$$



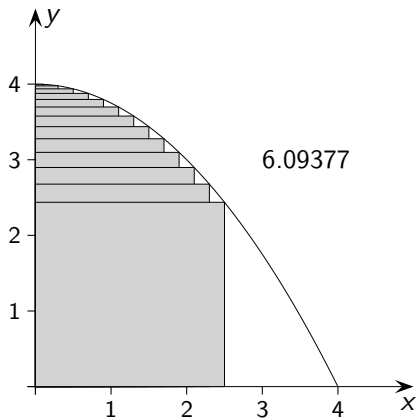
$$f(x) = -\frac{1}{4}x^2 + 4$$



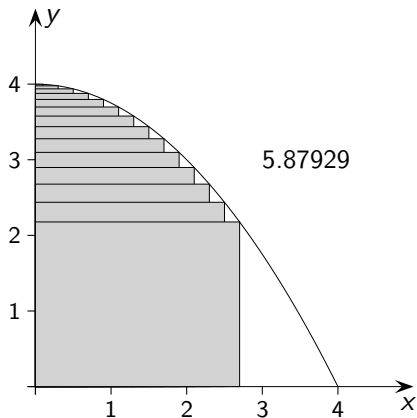
$$f(x) = -\frac{1}{4}x^2 + 4$$



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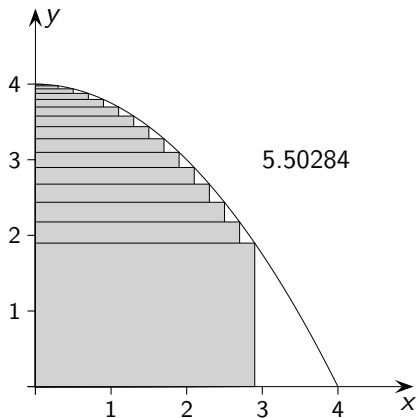


$$f(x) = -\frac{1}{4}x^2 + 4$$

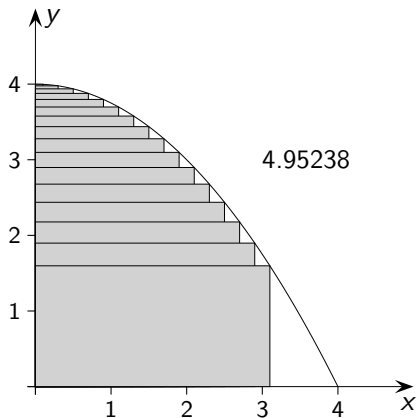




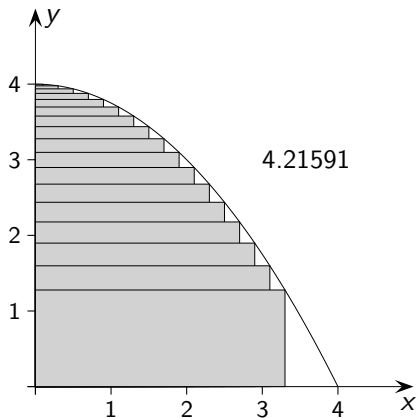
$$f(x) = -\frac{1}{4}x^2 + 4$$



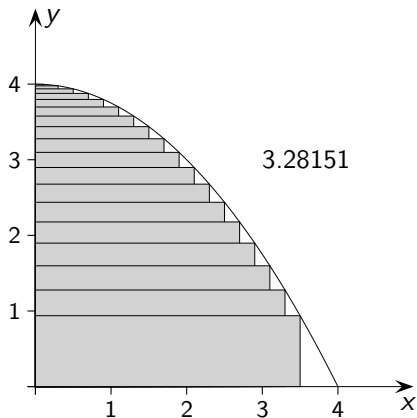
$$f(x) = -\frac{1}{4}x^2 + 4$$



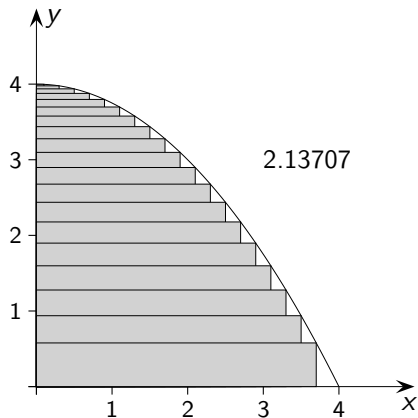
$$f(x) = -\frac{1}{4}x^2 + 4$$



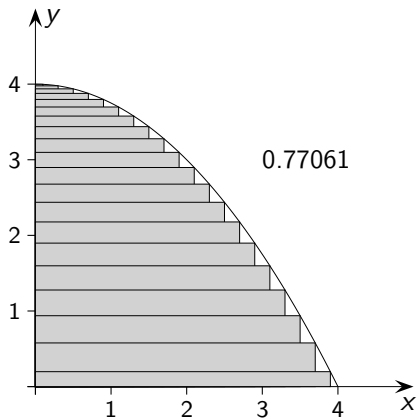
$$f(x) = -\frac{1}{4}x^2 + 4$$



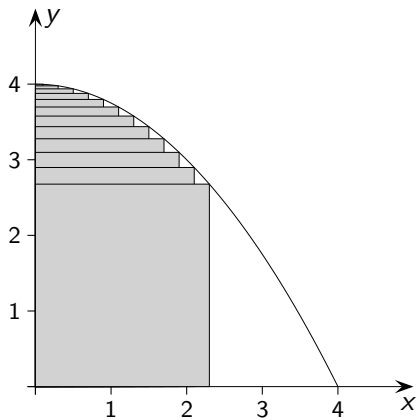
$$f(x) = -\frac{1}{4}x^2 + 4$$



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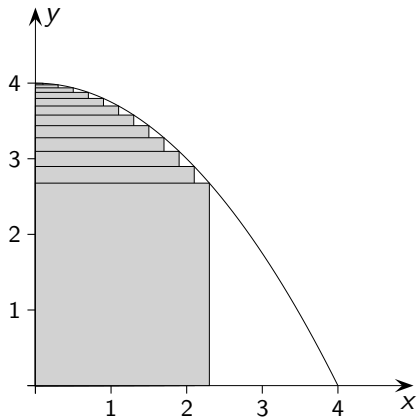


$$f(x) = -\frac{1}{4}x^2 + 4$$



$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

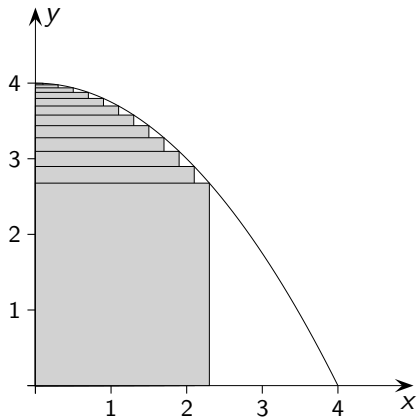




$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

$$A'(x) = ?$$

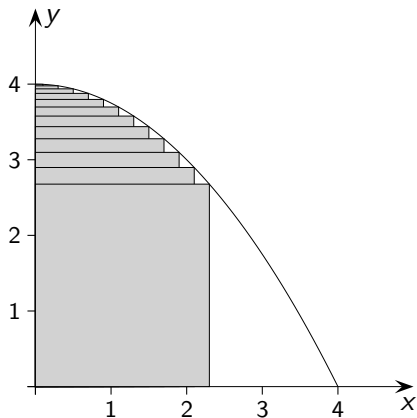


$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

$$A'(x) = ?$$

$$A'(x) = 0$$

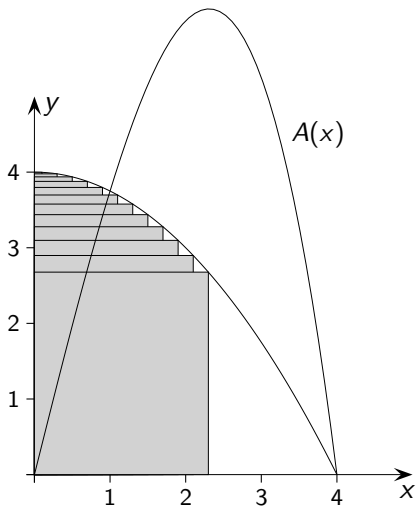


$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

$$A'(x) = -\frac{3}{4}x^2 + 4$$

$$A'(x) = 0$$



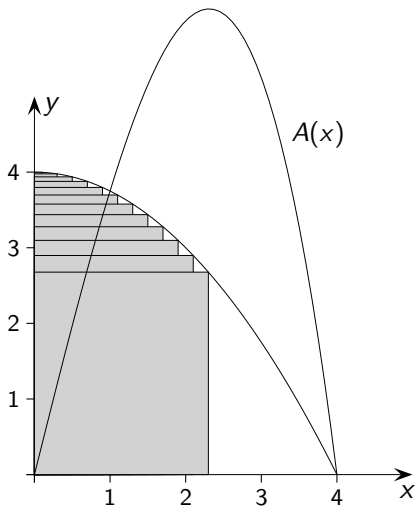
$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

$$A'(x) = -\frac{3}{4}x^2 + 4$$

$$A'(x) = 0$$

$$x_E = 2,31$$



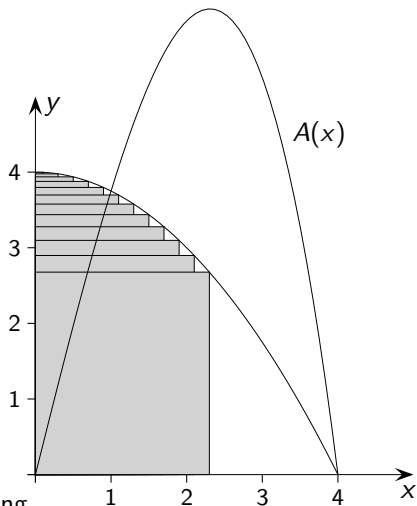
$$f(x) = -\frac{1}{4}x^2 + 4$$

$$A(x) = x \cdot f(x)$$

$$A'(x) = -\frac{3}{4}x^2 + 4$$

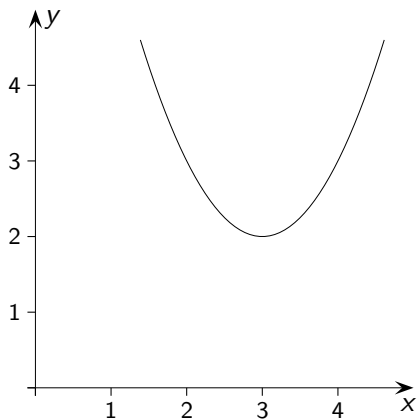
$$A'(x) = 0$$

$$x_E = 2,31$$

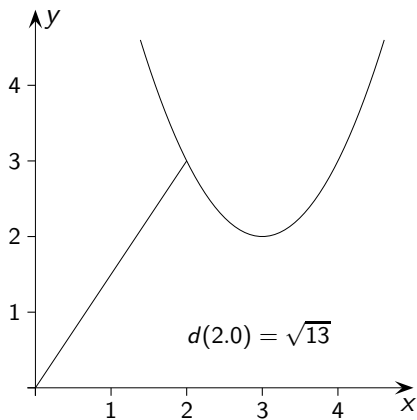


Maximum an der Stelle  $x_E$ , Begründung ...

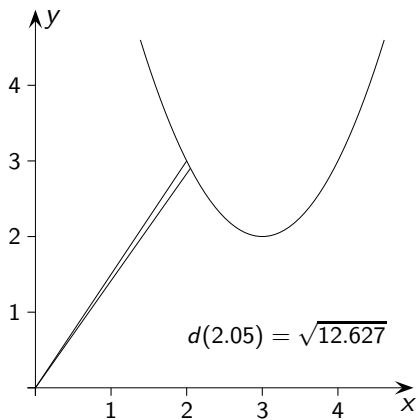
$$f(x) = (x - 3)^2 + 2$$



$$f(x) = (x - 3)^2 + 2$$

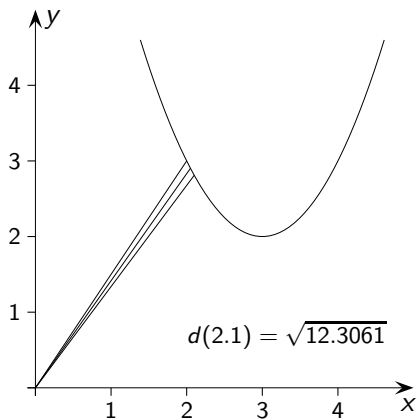


$$f(x) = (x - 3)^2 + 2$$

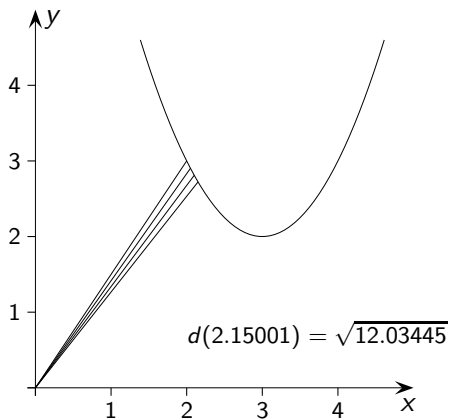




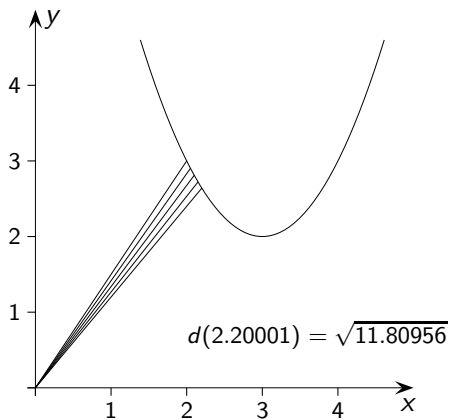
$$f(x) = (x - 3)^2 + 2$$



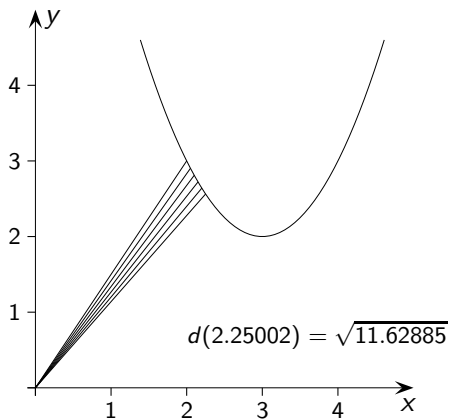
$$f(x) = (x - 3)^2 + 2$$



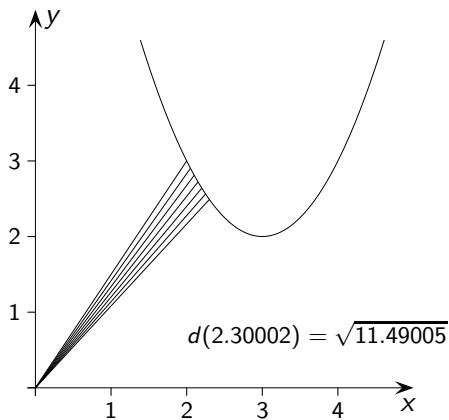
$$f(x) = (x - 3)^2 + 2$$



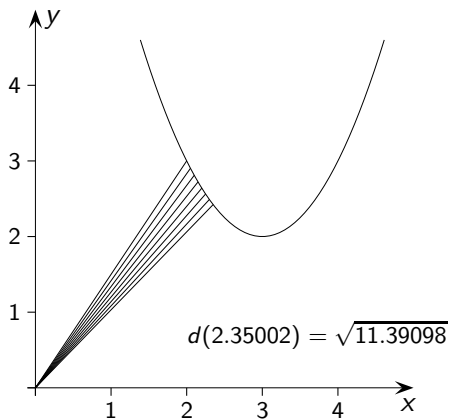
$$f(x) = (x - 3)^2 + 2$$



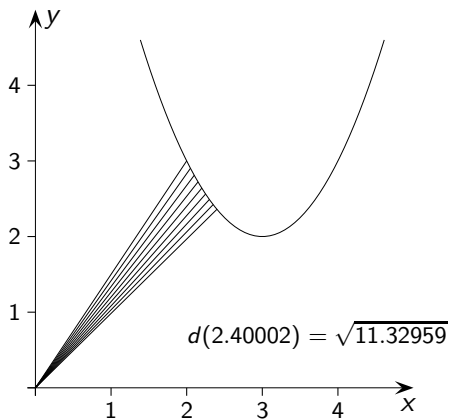
$$f(x) = (x - 3)^2 + 2$$



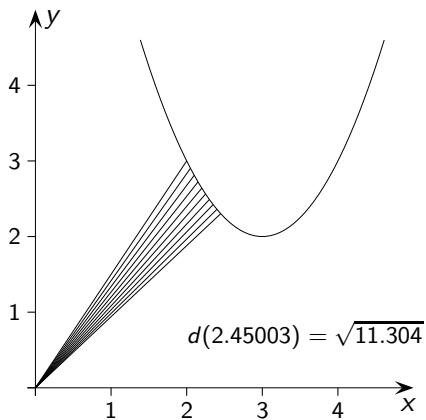
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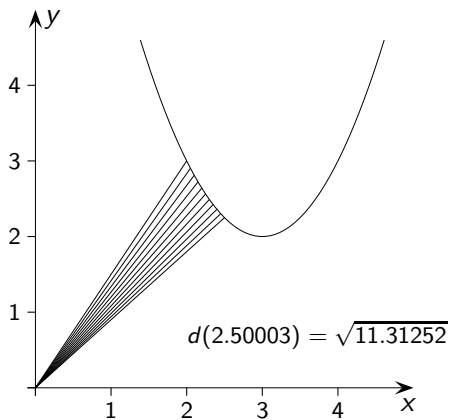


$$f(x) = (x - 3)^2 + 2$$

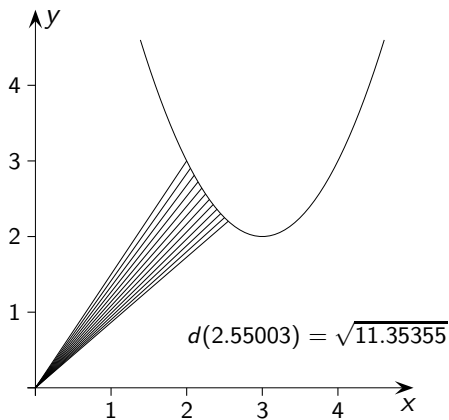




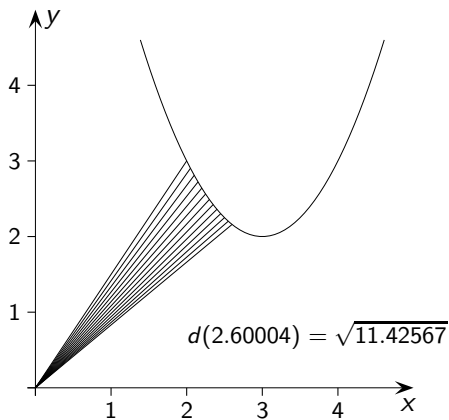
$$f(x) = (x - 3)^2 + 2$$



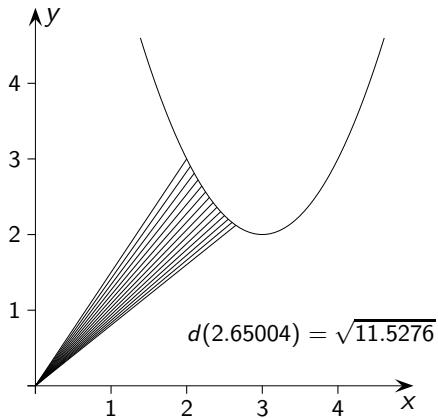
$$f(x) = (x - 3)^2 + 2$$



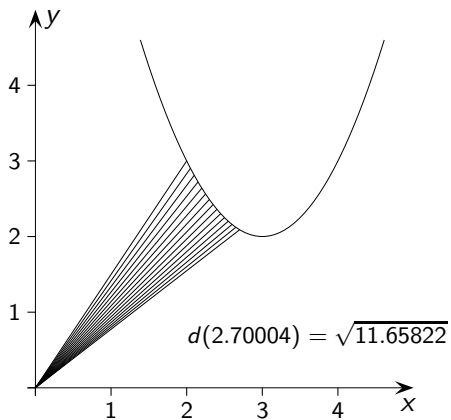
$$f(x) = (x - 3)^2 + 2$$



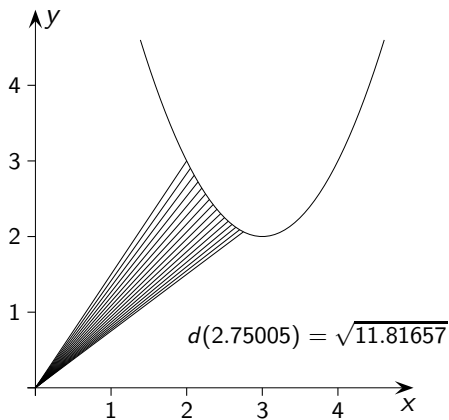
$$f(x) = (x - 3)^2 + 2$$



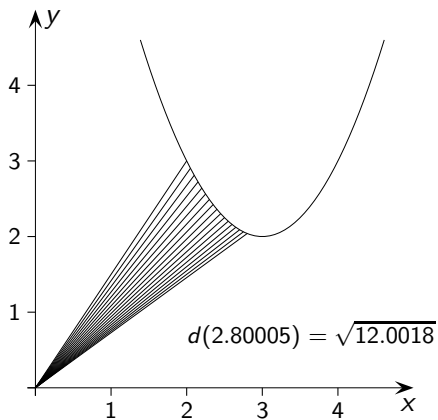
$$f(x) = (x - 3)^2 + 2$$



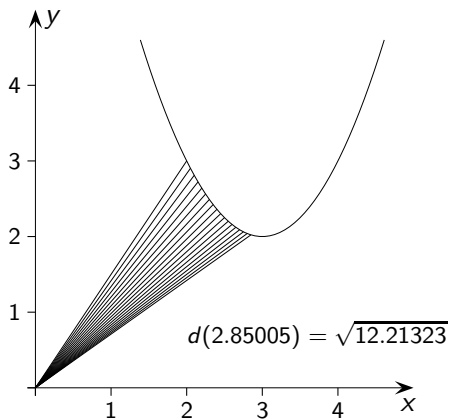
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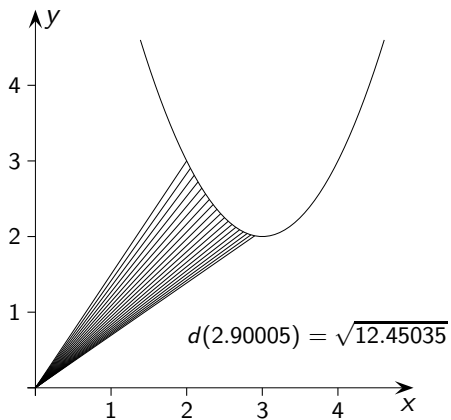


$$f(x) = (x - 3)^2 + 2$$

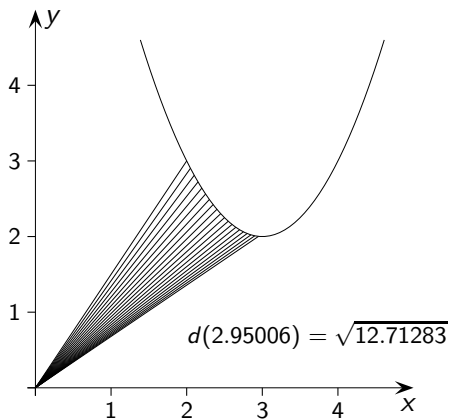




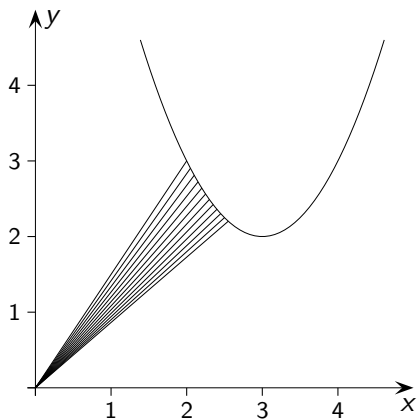
$$f(x) = (x - 3)^2 + 2$$



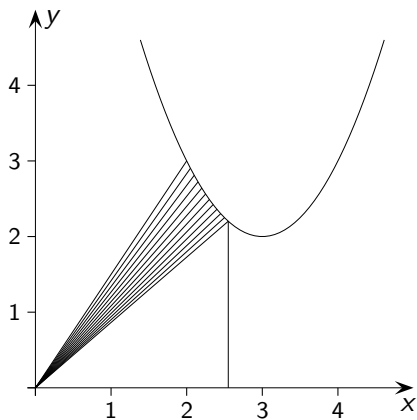
$$f(x) = (x - 3)^2 + 2$$



$$f(x) = (x - 3)^2 + 2$$

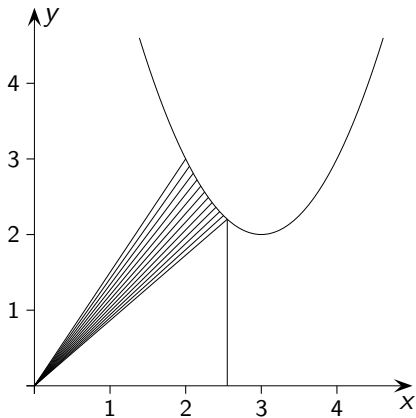


$$f(x) = (x - 3)^2 + 2$$



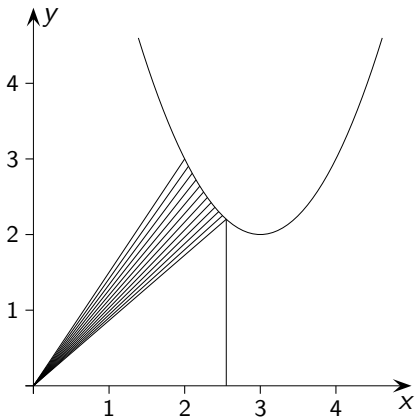
$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$



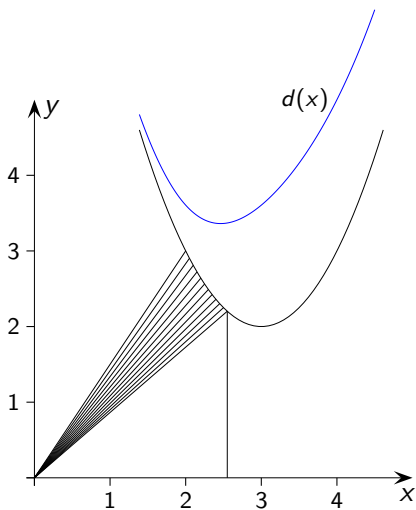
$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$
$$x_E = 2,462$$

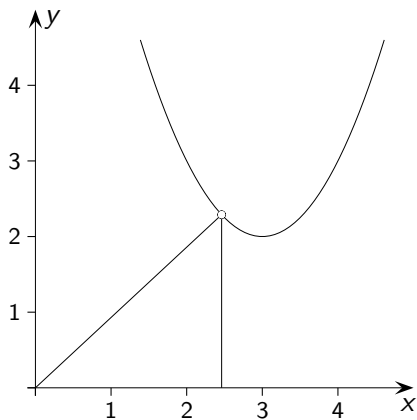


$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$
$$x_E = 2,462$$



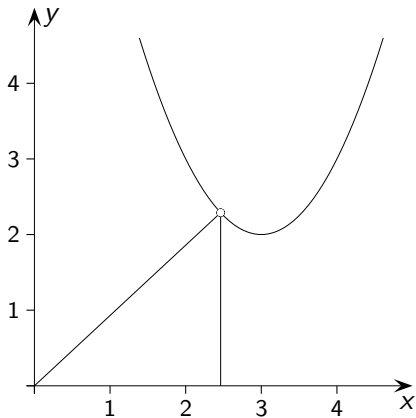
$$f(x) = (x - 3)^2 + 2$$





$$f(x) = (x - 3)^2 + 2$$

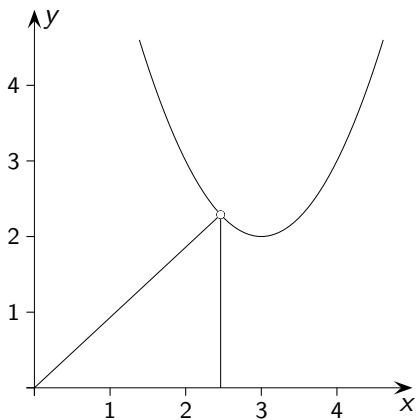
$$d(x) = \sqrt{x^2 + (f(x))^2}$$



$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$

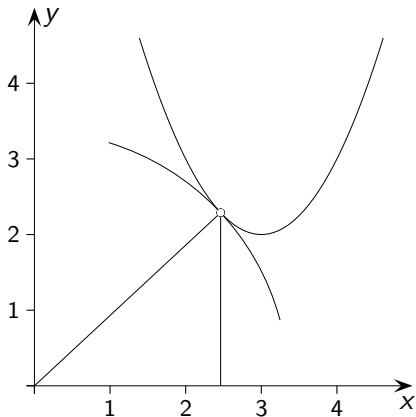
$$d(x_E) = 3,362$$



$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$

$$d(x_E) = 3,362$$



$$f(x) = (x - 3)^2 + 2$$

$$d(x) = \sqrt{x^2 + (f(x))^2}$$

$$d(x_E) = 3,362$$

