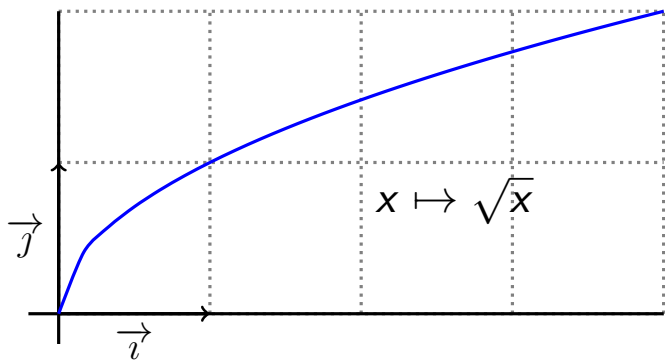


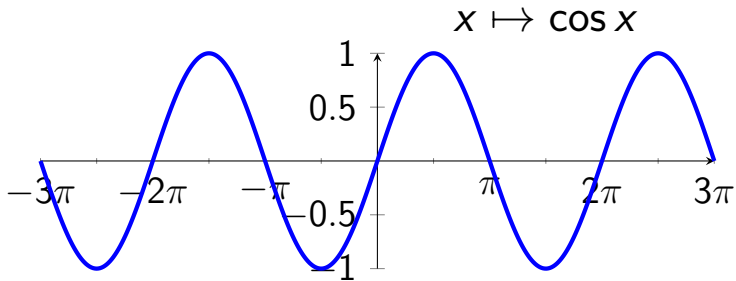
$$\sqrt{9} = 3$$

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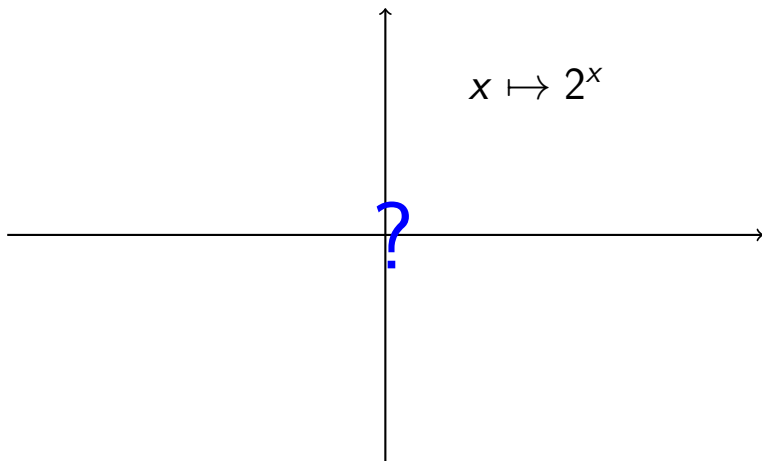
$$\cos \frac{\pi}{4} = \frac{\sqrt{2}}{2}$$

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$$2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$$

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Traçons la courbe de la fonction définie sur  $\mathbb{R}$  par

$$f(x) = e^x$$

(où  $e \approx 2,71828 \dots$ ).

▶  $f(0) = e^0 = 1$

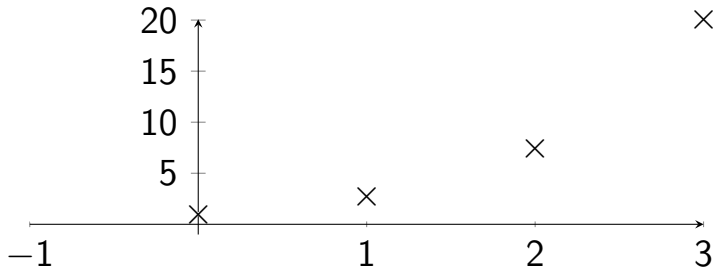


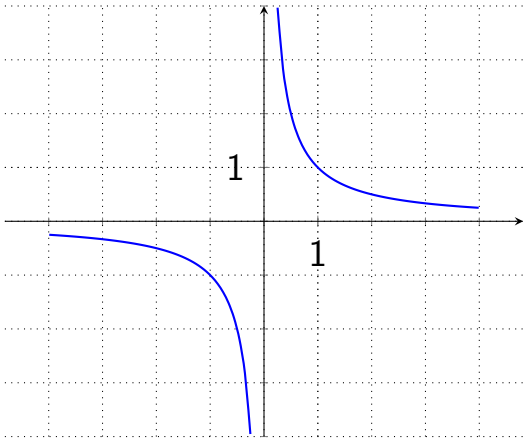
▶  $f(0) = e^0 = 1$

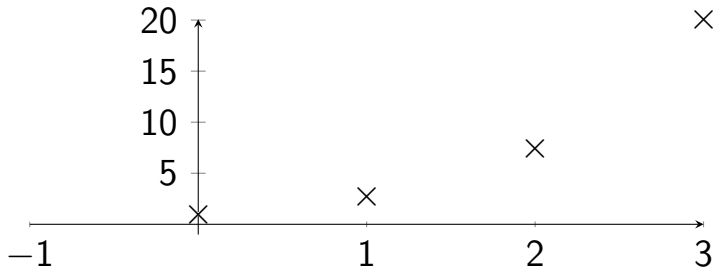
▶  $f(1) = e^1 = e \approx 2,71828$

- ▶  $f(0) = e^0 = 1$
- ▶  $f(1) = e^1 = e \approx 2,71828$
- ▶  $f(2) = e^2 = e \times e \approx 7,3$

- ▶  $f(0) = e^0 = 1$
- ▶  $f(1) = e^1 = e \approx 2,71828$
- ▶  $f(2) = e^2 = e \times e \approx 7,3$
- ▶  $f(3) = e^3 = e \times e \times e \approx 20,1$







▶  $\sqrt{9} = 9^{1/2} = 9^{0,5}$

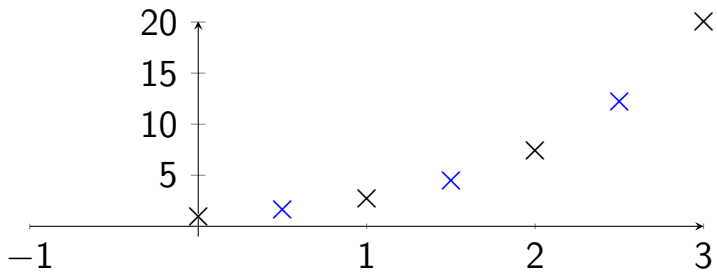
▶  $\sqrt{9} = 9^{1/2} = 9^{0,5}$

▶  $f(0,5) = e^{0,5} = \sqrt{e} \approx 1,6$



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- ▶  $f(0,5) = e^{0,5} = \sqrt{e} \approx 1,6$
- ▶  $f(1,5) = e^{1,5} = e^1 \times e^{0,5} \approx 4,5$
- ▶  $f(2,5) = e^{2,5} = e^2 \times e^{0,5} \approx 12,2$



►  $\sqrt[3]{8} = ?$  est le nombre tel que  $?^3 = 8$

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- ▶  $f(1/3) = e^{1/3} = \sqrt[3]{e} \approx 1,4$

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- ▶  $\sqrt[3]{8} = 8^{1/3} = 2$
- ▶  $f(1/3) = e^{1/3} = \sqrt[3]{e} \approx 1,4$
- ▶  $f(2/3) = e^{2/3} = e^{1/3} \times e^{1/3} \approx 1,9$

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- ▶  $\sqrt[3]{8} = 8^{1/3} = 2$
- ▶  $f(1/3) = e^{1/3} = \sqrt[3]{e} \approx 1,4$
- ▶  $f(2/3) = e^{2/3} = e^{1/3} \times e^{1/3} \approx 1,9$
- ▶  $f(1 + 1/3) = e^1 \times e^{1/3} = e \times e^{1/3} \approx 3,8$



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- ▶  $f(1/3) = e^{1/3} = \sqrt[3]{e} \approx 1,4$
- ▶  $f(2/3) = e^{2/3} = e^{1/3} \times e^{1/3} \approx 1,9$
- ▶  $f(1 + 1/3) = e^1 \times e^{1/3} = e \times e^{1/3} \approx 3,8$
- ▶  $f(1 + 2/3) = e^1 \times e^{2/3} = e \times e^{2/3} \approx 5,3$

- ▶  $\sqrt[3]{8} = ?$  est le nombre tel que  $?^3 = 8$
- ▶  $\sqrt[3]{8} = 8^{1/3} = 2$
- ▶  $f(1/3) = e^{1/3} = \sqrt[3]{e} \approx 1,4$
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- ▶  $f(1 + 2/3) = e^1 \times e^{2/3} = e \times e^{2/3} \approx 5,3$
- ▶  $f(2 + 1/3) = e^2 \times e^{1/3} \approx 10,3$

- ▶  $\sqrt[3]{8} = ?$  est le nombre tel que  $?^3 = 8$
- ▶  $\sqrt[3]{8} = 8^{1/3} = 2$
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- ▶  $f(2 + 1/3) = e^2 \times e^{1/3} \approx 10,3$
- ▶  $f(2 + 2/3) = e^2 \times e^{2/3} \approx 14,4$

