

Ex 3

$$\frac{-3}{25} = \frac{-12}{100} = \frac{-12}{10^2} \in \mathbb{D}$$

$$\frac{0,002}{0,27} = \frac{2}{270} \in \mathbb{Q}$$

$$\frac{(0,003)^2}{100^4} = \frac{(3 \times 10^{-3})^2}{(10^2)^4} = \frac{9 \times 10^{-6}}{10^8} = \frac{9}{10^6 \times 10^8} = \frac{9}{10^{14}} \in \mathbb{D}$$

Ex 4

|        |    |   |    |
|--------|----|---|----|
| $x$    | -3 | 1 | 7  |
| $f(x)$ | -1 | 4 | -2 |

Ex 5

$$\begin{aligned} A &= -3t(-4t+1) - (-1+6t) \\ &= 12t^2 - 3t + 1 - 6t \\ &= 12t^2 - 9t + 1 \end{aligned}$$

$$\begin{aligned} B &= 3(-2b+4)(-b-3) \\ &= 3(2b^2 + 6b - 4b - 12) \\ &= 6b^2 + 18b - 12b - 36 = \boxed{6b^2 + 6b - 36} \end{aligned}$$

$$\begin{aligned} C &= (3k-1)^2 = (3k)^2 - 2 \times 3k \times 1 + 1^2 \\ &= 9k^2 - 6k + 1 \end{aligned}$$

$$\begin{aligned} D &= (x+4)^2 - (x-6)(-1+x) \\ &= x^2 + 2 \times x \times 4 + 4^2 - (-x + x^2 + 6 - 6x) \\ &= x^2 + 8x + 16 + x - x^2 - 6 + 6x \\ &= \boxed{15x + 10} \end{aligned}$$

Ex 6

$$\begin{aligned} 1) \quad f(x) &= -2(1-x)^2 \\ f(4) &= -2(1-4)^2 = -2(-3)^2 = -2 \times 9 \\ &= \boxed{-18} \end{aligned}$$

$$\begin{aligned} 2) \quad g(t) &= \frac{1-t^2}{2-t} \\ g(-3) &= \frac{1-(-3)^2}{2-(-3)} = \frac{1-9}{2+3} = \boxed{\frac{-8}{5}} \end{aligned}$$

Ex 7

$$\frac{2x-5}{3} \xrightarrow{\times 3} 2x-5 \xrightarrow{+5} 2x \xrightarrow{:2} x$$

Ex 1

$[2, 7] \cap [4, 8] = [4, 7[$

$] -\infty, 2] \cup [0, 6[ = ] -\infty, 6[$