

Distributivité

Niveau de difficulté : intermédiaire

1 Énoncé

Développer et réduire les expressions suivantes :

$$A = -13x(-17 + 37x)$$

$$B = -37z(-41 + 10z)$$

$$C = y(48y + 37)$$

$$D = -19(38 + 29z)$$

$$E = -12y(28y - 6)$$

$$F = 20(-2 + 11y)$$

$$G = 35(-47 + 39y)$$

$$H = -28z(-29 - 32z)$$

$$I = 33(25z - 12)$$

$$J = -39x(14 - 20x)$$

$$K = -26x(33 - 7x)$$

$$L = 13x(-14x + 32)$$

$$M = -28t(-33 - 3t)$$

$$N = -30(-19 + 2t)$$

$$O = 11(-38 - 12y)$$

$$P = 5(-43x - 19)$$

$$Q = 23(50 + 36t)$$

$$R = 27y(41 - 16y)$$

$$S = 16x(20x + 46)$$

$$T = -34y(24 + 46y)$$

2 Corrigé

$$\begin{aligned}A &= -13x(-17 + 37x) \\A &= -13x \times (-17) - 13x \times 37x \\A &= 221x - 481x^2 \\A &= -481x^2 + 221x\end{aligned}$$

$$\begin{aligned}C &= y(48y + 37) \\C &= y \times 48y + y \times 37 \\C &= 48y^2 + 37y\end{aligned}$$

$$\begin{aligned}E &= -12y(28y - 6) \\E &= -12y \times 28y - 12y \times (-6) \\E &= -336y^2 + 72y\end{aligned}$$

$$\begin{aligned}G &= 35(-47 + 39y) \\G &= 35 \times (-47) + 35 \times 39y \\G &= -1645 + 1365y \\G &= 1365y - 1645\end{aligned}$$

$$\begin{aligned}I &= 33(25z - 12) \\I &= 33 \times 25z + 33 \times (-12) \\I &= 825z - 396\end{aligned}$$

$$\begin{aligned}K &= -26x(33 - 7x) \\K &= -26x \times 33 - 26x \times (-7x) \\K &= -858x + 182x^2 \\K &= 182x^2 - 858x\end{aligned}$$

$$\begin{aligned}M &= -28t(-33 - 3t) \\M &= -28t \times (-33) - 28t \times (-3t) \\M &= 924t + 84t^2 \\M &= 84t^2 + 924t\end{aligned}$$

$$\begin{aligned}O &= 11(-38 - 12y) \\O &= 11 \times (-38) + 11 \times (-12y) \\O &= -418 - 132y \\O &= -132y - 418\end{aligned}$$

$$\begin{aligned}Q &= 23(50 + 36t) \\Q &= 23 \times 50 + 23 \times 36t \\Q &= 1150 + 828t \\Q &= 828t + 1150\end{aligned}$$

$$\begin{aligned}S &= 16x(20x + 46) \\S &= 16x \times 20x + 16x \times 46 \\S &= 320x^2 + 736x\end{aligned}$$

$$\begin{aligned}B &= -37z(-41 + 10z) \\B &= -37z \times (-41) - 37z \times 10z \\B &= 1517z - 370z^2 \\B &= -370z^2 + 1517z\end{aligned}$$

$$\begin{aligned}D &= -19(38 + 29z) \\D &= -19 \times 38 - 19 \times 29z \\D &= -722 - 551z \\D &= -551z - 722\end{aligned}$$

$$\begin{aligned}F &= 20(-2 + 11y) \\F &= 20 \times (-2) + 20 \times 11y \\F &= -40 + 220y \\F &= 220y - 40\end{aligned}$$

$$\begin{aligned}H &= -28z(-29 - 32z) \\H &= -28z \times (-29) - 28z \times (-32z) \\H &= 812z + 896z^2 \\H &= 896z^2 + 812z\end{aligned}$$

$$\begin{aligned}J &= -39x(14 - 20x) \\J &= -39x \times 14 - 39x \times (-20x) \\J &= -546x + 780x^2 \\J &= 780x^2 - 546x\end{aligned}$$

$$\begin{aligned}L &= 13x(-14x + 32) \\L &= 13x \times (-14x) + 13x \times 32 \\L &= -182x^2 + 416x\end{aligned}$$

$$\begin{aligned}N &= -30(-19 + 2t) \\N &= -30 \times (-19) - 30 \times 2t \\N &= 570 - 60t \\N &= -60t + 570\end{aligned}$$

$$\begin{aligned}P &= 5(-43x - 19) \\P &= 5 \times (-43x) + 5 \times (-19) \\P &= -215x - 95\end{aligned}$$

$$\begin{aligned}R &= 27y(41 - 16y) \\R &= 27y \times 41 + 27y \times (-16y) \\R &= 1107y - 432y^2 \\R &= -432y^2 + 1107y\end{aligned}$$

$$\begin{aligned}T &= -34y(24 + 46y) \\T &= -34y \times 24 - 34y \times 46y \\T &= -816y - 1564y^2 \\T &= -1564y^2 - 816y\end{aligned}$$