Distributivité

Niveau de difficulté : VIOLENT

1 Enoncé

Développer et réduire les expressions suivantes :

A=$(31t^3 + 7t)(7t^2 - 40t)$

B=$(-25y^6 + 43y)(19y^2 - 27)$

C=$(-2x^5 + 44x^4)(43 - 3x)$

D=$(40y^2 + 28y)(8y^4 - 12)$

E=$(-7x^4 + 15x)(-34x + 16)$

F=$(32x^3 + 15x^2)(-6x^5 + 32)$

G=$(16z^2 - 32)(-34z^3 + 39)$

H=$(35x^6 + 39x^5)(-37 + 13x)$

I=$(-5z^3 + 30)(15z^2 - 26)$

J=$(8y^3 + 50)(-17y^2 - 30)$

K=$(37 + 7x)(-40x - 14)$

L=$(44z^6 - 8z)(-44z + 15)$

M=$(29z^2 - 37z^5)(11z^5 - 17z)$

N=$(12 + 14x)(25x^6 + 36x)$

O=$(24y^6 + 19y^4)(-43y^2 + 16y)$

P=$(-10z^3 - 40z)(-38z^3 - 34)$

Q=$(-15y - 38y^5)(18y + 9)$

R=$(-19z + 16z^6)(-33z^6 - 15)$

S=$(-28t^6 - 38t^3)(-5t^6 - 14t)$

T=$(-19z^5 - 37)(-31z^3 + 1)$

2 Corrigé

A=$(31t^3+7t)(7t^2-40t)$
A=$31t^3\times 7t^2+31t^3\times(-40t)+7t\times 7t^2+7t\times(-40t)$
A=$217t^5-1240t^4+49t^3-280t^2$
A=$217t^5-1240t^4+49t^3-280t^2$

B=$(-25y^6+43y)(19y^2-27)$
B=$-25y^6\times 19y^2-25y^6\times(-27)+43y\times 19y^2+43y\times(-27)$
B=$-475y^8+675y^6+817y^3-1161y$
B=$-475y^8+675y^6+817y^3-1161y$

C=$(-2x^5+44x^4)(43-3x)$
C=$-2x^5\times 43-2x^5\times(-3x)+44x^4\times 43+44x^4\times(-3x)$
C=$-86x^5+6x^6+1892x^4-132x^5$
C=$6x^6-86x^5-132x^5+1892x^4$
C=$6x^6-218x^5+1892x^4$

D=$(40y^2+28y)(8y^4-12)$
D=$40y^2\times 8y^4+40y^2\times(-12)+28y\times 8y^4+28y\times(-12)$
D=$320y^6-480y^2+224y^5-336y$
D=$320y^6+224y^5-480y^2-336y$
D=$320y^6+224y^5-480y^2-336y$

E=$(-7x^4+15x)(-34x+16)$
E=$-7x^4\times(-34x)-7x^4\times 16+15x\times(-34x)+15x\times 16$
E=$238x^5-112x^4-510x^2+240x$
E=$238x^5-112x^4-510x^2+240x$

F=$(32x^3+15x^2)(-6x^5+32)$
F=$32x^3\times(-6x^5)+32x^3\times 32+15x^2\times(-6x^5)+15x^2\times 32$
F=$-192x^8+1024x^3-90x^7+480x^2$
F=$-192x^8-90x^7+1024x^3+480x^2$
F=$-192x^8-90x^7+1024x^3+480x^2$

G=$(16z^2-32)(-34z^3+39)$
G=$16z^2\times(-34z^3)+16z^2\times 39-32\times(-34z^3)-32\times 39$
G=$-544z^5+624z^2+1088z^3-1248$
G=$-544z^5+1088z^3+624z^2-1248$
G=$-544z^5+1088z^3+624z^2-1248$

H=$(35x^6+39x^5)(-37+13x)$
H=$35x^6\times(-37)+35x^6\times 13x+39x^5\times(-37)+39x^5\times 13x$
H=$-1295x^6+455x^7-1443x^5+507x^6$
H=$455x^7-1295x^6+507x^6-1443x^5$
H=$455x^7-788x^6-1443x^5$

I=$(-5z^3+30)(15z^2-26)$
I=$-5z^3\times 15z^2-5z^3\times(-26)+30\times 15z^2+30\times(-26)$
I=$-75z^5+130z^3+450z^2-780$
I=$-75z^5+130z^3+450z^2-780$

J=$(8y^3+50)(-17y^2-30)$
J=$8y^3\times(-17y^2)+8y^3\times(-30)+50\times(-17y^2)+50\times(-30)$
J=$-136y^5-240y^3-850y^2-1500$
J=$-136y^5-240y^3-850y^2-1500$

K=$(37+7x)(-40x-14)$
K=$37\times(-40x)+37\times(-14)+7x\times(-40x)+7x\times(-14)$
K=$-1480x-518-280x^2-98x$
K=$-280x^2-1480x-98x-518$
K=$-280x^2-1578x-518$

L=$(44z^6-8z)(-44z+15)$
L=$44z^6\times(-44z)+44z^6\times 15-8z\times(-44z)-8z\times 15$
L=$-1936z^7+660z^6+352z^2-120z$
L=$-1936z^7+660z^6+352z^2-120z$

M=$(29z^2-37z^5)(11z^5-17z)$
M=$29z^2\times 11z^5+29z^2\times(-17z)-37z^5\times 11z^5-37z^5\times(-17z)$
M=$319z^7-493z^3-407z^10+629z^6$
M=$-407z^10+319z^7+629z^6-493z^3$
M=$-407z^10+319z^7+629z^6-493z^3$

N=$(12+14x)(25x^6+36x)$
N=$12\times 25x^6+12\times 36x+14x\times 25x^6+14x\times 36x$
N=$300x^6+432x+350x^7+504x^2$
N=$350x^7+300x^6+504x^2+432x$
N=$350x^7+300x^6+504x^2+432x$

O=$(24y^6+19y^4)(-43y^2+16y)$
O=$24y^6\times(-43y^2)+24y^6\times 16y+19y^4\times(-43y^2)+19y^4\times 16y$
O=$-1032y^8+384y^7-817y^6+304y^5$
O=$-1032y^8+384y^7-817y^6+304y^5$

P=$(-10z^3-40z)(-38z^3-34)$
P=$-10z^3\times(-38z^3)-10z^3\times(-34)-40z\times(-38z^3)-40z\times(-34)$
P=$380z^6+340z^3+1520z^4+1360z$
P=$380z^6+1520z^4+340z^3+1360z$
P=$380z^6+1520z^4+340z^3+1360z$

Q=$(-15y-38y^5)(18y+9)$
Q=$-15y\times 18y-15y\times 9-38y^5\times 18y-38y^5\times 9$
Q=$-270y^2-135y-684y^6-342y^5$
Q=$-684y^6-342y^5-270y^2-135y$
Q=$-684y^6-342y^5-270y^2-135y$

R=$(-19z+16z^6)(-33z^6-15)$
R=$-19z\times(-33z^6)-19z\times(-15)+16z^6\times(-33z^6)+16z^6\times(-15)$
R=$627z^7+285z-528z^12-240z^6$
R=$-528z^12+627z^7-240z^6+285z$
R=$-528z^12+627z^7-240z^6+285z$

S=$(-28t^6-38t^3)(-5t^6-14t)$
S=$-28t^6\times(-5t^6)-28t^6\times(-14t)-38t^3\times(-5t^6)-38t^3\times(-14t)$
S=$140t^12+392t^7+190t^9+532t^4$
S=$140t^12+190t^9+392t^7+532t^4$
S=$140t^12+190t^9+392t^7+532t^4$

T=$(-19z^5-37)(-31z^3+1)$
T=$-19z^5\times(-31z^3)-19z^5\times 1-37\times(-31z^3)-37\times 1$
T=$589z^8-19z^5+1147z^3-37$
T=$589z^8-19z^5+1147z^3-37$