A. ROBICHON

LA RÈGLE A CALCULS

RÉPONSES DES EXERCICES PROPOSÉS

LES ÉDITIONS FOUCHER
128, rue de Rivoli, Paris

CHAPITRE 3, *(Page 19)*.

$A = 4\,590\,000$ $B = 0{,}000\,532$ $C = 719{,}5$
$D = 53\,500\,000$ $E = 54\,700$ $F = 3{,}735$
$G = 0{,}000\,606$

CHAPITRE 4, *(Page 24)*.

$A = 1\,443$ $B = 0{,}000\,168\,8$ $C = 50{,}5$
$D = 1{,}751 \times 10^{12}$ $E = 0{,}028\,22$ $F = 2{,}685$
$G = 0{,}437\,5$

CHAPITRE 5, *(Page 29)*.

$A = 63\,100$ $B = 0{,}004\,665$ $C = 0{,}004\,795$
$D = 31{,}15$ $E = 8\,450\,000$ $F = 2\,885$
$G = 622\,000$

CHAPITRE 6, *(Page 34)*.

I. $A = 0{,}356$ $B = 0{,}092\,2$ $C = 0{,}002\,062$
$D = 11{,}85$ $E = 0{,}000\,146\,6$ $F = 1{,}429$
$G = 0{,}035\,72$

II. $A = 344\,000$ $B = 160\,000\,000$ $C = 3\,865$
$D = 10\,810$ $E = 0{,}048\,67$ $F = 0{,}258$

CHAPITRE 7, *(Page 36)*.

$A^2 = 3\,295$ $A^3 = 189\,000$ $E^2 = 29\,300\,000$ $E^3 = 1{,}585 \times 10^{11}$
$B^2 = 15\,270$ $B^3 = 1\,887\,000$ $F^2 = 0{,}000\,581$ $F^3 = 0{,}000\,014$
$C^2 = 73\,000\,000$ $C^3 = 6{,}23 \times 10^{11}$ $G^2 = 4\,120\,000$ $G^3 = 8{,}35 \times 10^{8}$
$D^2 = 0{,}000\,112\,3$ $D^3 = 0{,}000\,001\,19$ $H^2 = 0{,}000\,615$ $H^3 = 0{,}000\,015\,25$
$J^2 = 3{,}39 \times 10^{-13}$ $J^3 = 1{,}97 \times 10^{-16}$

CHAPITRE 8, *(Page 38)*.

$\sqrt{A} = 2{,}31$ $\sqrt[3]{A} = 1{,}748$ $\sqrt{E} = 0{,}092\,55$ $\sqrt[3]{E} = 0{,}204\,5$
$\sqrt{B} = 5{,}72$ $\sqrt[3]{B} = 3{,}198$ $\sqrt{F} = 2\,990$ $\sqrt[3]{F} = 207{,}5$
$\sqrt{C} = 213{,}8$ $\sqrt[3]{C} = 35{,}75$ $\sqrt{H} = 0{,}007\,39$ $\sqrt[3]{H} = 0{,}037\,95$
$\sqrt{D} = 0{,}255$ $\sqrt[3]{D} = 0{,}402$ $\sqrt{J} = 509$ $\sqrt[3]{J} = 63{,}7$
$\sqrt{K} = 0{,}239\,5$ $\sqrt[3]{K} = 0{,}386$

CHAPITRE 9, *(Page 41)*.

I. $S_1 = 8{,}4$ $S_2 = 0{,}817$ $S_3 = 91{,}6$
$S_4 = 23\,200$ $S_5 = 196\,000\,000$ $S_6 = 0{,}000\,029\,5$

II. $D_1 = 2{,}385$ $D_2 = 28{,}3$ $D_3 = 180{,}6$
$D_4 = 7{,}845$ $D_5 = 1{,}041$ $D_6 = 0{,}094\,6$

CHAPITRE 10, *(Page 46)*.

I. $\sin 42°30' = 0{,}675\,5$ $\quad \sin 14°22' = 0{,}248\,1$
$\cos 83°27' = 0{,}114\,1$ $\quad \operatorname{tg} 8°22' = 0{,}147\,1$ $\quad \operatorname{tg} 25°10' = 0{,}47$
$\operatorname{ctg} 76°18' = 0{,}243\,8$ $\quad \operatorname{ctg} 16°40' = 3{,}34$ $\quad \operatorname{tg} 82°21' = 7{,}445$

II. $\sin 1°18' = 0{,}022\,7$ $\quad \operatorname{tg} 47'1/2 = 0{,}013\,82$ $\quad \cos 87°26' = 0{,}044\,8$
$\cos 89°19' = 0{,}011\,93$ $\quad \operatorname{ctg} 89°23'1/2 = 0{,}010\,62$ $\quad \operatorname{ctg} 54' = 63{,}7$

III. Pour le contrôle, nous donnons les valeurs *plus poussées* des lignes :

$\sin 12°33' = 0{,}217\,29$ $\quad \sin 54°18' = 0{,}812\,08$ $\quad \sin 83°15' = 0{,}993\,07$
$\cos 12°15' = 0{,}977\,23$ $\quad \cos 48°37' = 0{,}661\,09$ $\quad \cos 77°32' = 0{,}215\,87$

CHAPITRE 11, *(Page 50)*.

I. Résultats à la minute près (pour contrôle) :

$x_1 = 25°47'$ $\quad x_2 = 49°17'$ $\quad x_3 = 79°25'$
$x_4 = 77°35'$ $\quad x_5 = 7°29'$ $\quad x_6 = 12°05'$ $\quad x_7 = 79°39'1/2$
$x_8 = 70°24'$ $\quad x_9 = 7°47'$

II. Valeurs *plus poussées* pour contrôle :

$y_1 = 1°11'30''$ $\quad y_2 = 86°32'56''$
$y_3 = 2°07'50''$ $\quad y_4 = 88°28'32''$ $\quad y_5 = 87°03'27''$ $\quad y_6 = 1°15'23''$

CHAPITRE 12, *(Page 54)*.

$\sin 1°24' = 0{,}024\,43$ $\quad \sin 7' = 0{,}002\,035$ $\quad \operatorname{tg} 5'' = 0{,}000\,024\,25$
$\operatorname{ctg} 30'' = 6\,875$ $\quad \operatorname{ctg} 88°25' = 0{,}027\,65$ $\quad \operatorname{tg} 89°33' = 127{,}3$
$\operatorname{ctg} 37' = 92{,}91$ $\quad \operatorname{ctg} 89°58'16'' = 0{,}000\,504$ $\quad \cos 89°59'10'' = 0{,}000\,242\,5$

CHAPITRE 13, *(Page 56)*.

$x_1 = 1'46''$ $\quad x_2 = 2°34'$ $\quad x_3 = 11'43''$
$x_4 = 17''$ $\quad x_5 = 89°49'56''$ $\quad x_6 = 89°59'28''$
$x_7 = 88°41'3/10$ $\quad x_8 = 86°20'$ $\quad x_9 = 89°58'54''4/10$ $\quad x_{10} = 5'55''$

CHAPITRE 14, *(Page 64)*.

I. $\log 85\,820 = 4{,}933\,6$ $\quad \log 0{,}931 = \bar{1}{,}969$
$\log 0{,}072\,7 = \bar{2}{,}861\,5$ $\quad \log 48 \times 10^4 = 5{,}681\,2$ $\quad \operatorname{colog} 0{,}164\,3 = 0{,}784\,5$
$\operatorname{colog} 0{,}006\,48 = 2{,}188\,4$ $\quad \operatorname{colog} 1{,}433 = \bar{1}{,}843\,5$ $\quad \operatorname{colog} 42{,}8 \times 10^{-4} = 4{,}368\,5$

II. $A = 4{,}455$ $\quad B = 34{,}11$ $\quad C = 78\,350$
$D = 0{,}455\,5$ $\quad E = 0{,}068\,8$ $\quad F = 1{,}08 \times 10^7$
$G = 0{,}468\,8$ $\quad H = 0{,}000\,290\,5$ $\quad J = 822$

III. $K = 2\,090$ $\quad L = 0{,}005\,94$ $\quad M = 3{,}028$
$N = 2{,}607$ $\quad P = 0{,}000\,034\,23$ $\quad Q = 1\,250$
$R = 0{,}039\,85$ $\quad S = 24\,150$