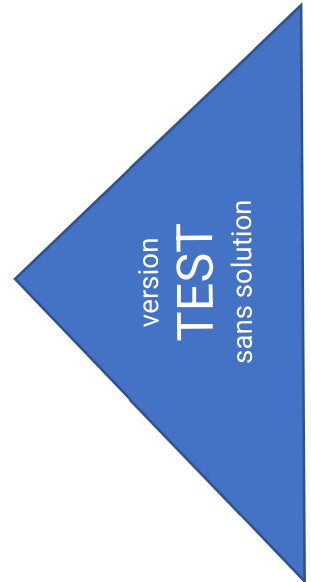


# Calcul Mental – cahier 1

## Addition et soustraction



1. Les élèves prêts pour un test se réunissent et s'assoient dans un endroit isolé sans pouvoir tricher.



2. Le prof choisit des numéros d'exercices à faire.



3. Avec le livret d'exercices sans les solutions, l'élève répond sur une feuille, dans un temps raisonnable.



4. A la fin, les élèves s'échangent leurs feuilles pour les corriger.



5. Les élèves corrigent en rouge la feuille d'un camarade en s'aidant de la version avec solutions.



6. Le prof vérifie d'un rapide coup d'œil. Plus de 80 %, le test est réussi. Sinon, il sera repassé après entraînement.

**module I : nombres naturels** : Additions et soustractions de nombres naturels → 100

Pages

niv.1	Additions et soustractions → 10.	$4 + 3 = 7$	4
niv.2	Additions et soustractions → 20 (sans passage par la dizaine).	$8 + 7 = 15$	5
niv.3	Additions et soustractions → 20 (avec passage par la dizaine).	$12 + 6 = 18$	6
niv.4	Additions et soustractions → 40 (avec passage par la dizaine).	$12 + 18 = 30$	7
niv.5	Additions et soustractions → 100 (sans passage par la dizaine).	$35 + 14 = 49$	8
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niv.7	Compléments à 10 et à 100.	$8 + \dots = 10$	10
<b>module II : nombres naturels</b> : Additions et soustractions de nombres naturels > 100			
niv.1	Additions et soustractions de dizaines (D +/- D).	$80 - 30 = 50$	11
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niv.5	Compensation jusqu'à 1000.	$440 + 97 = 437 + 100 = 537$	15
niv.6	Compensation jusqu'à 10 000.	$1542 + 504 = 1546 + 500 = 2046$	16

**module III : nombres naturels** : Ajouter ou soustraire un nombre particulier

niv.1	Ajouter ou soustraire 10 ou 100.	$540 - 100 = 440$	17
niv.2	Ajouter ou soustraire 9 ou 11.	$111 - 9 = 102$	18
niv.3	Ajouter ou soustraire 99 ou 101.	$578 - 99 = 479$	19

### *module IV : nombres naturels : techniques de calcul*

<i>niv.1</i>	Décomposer pour additionner ou soustraire.	$14 + 27 = 14 + 26 + 1 = 41$	20
<i>niv.2</i>	Compensation.	$82 + 19 = 81 + 20 + 101$	21
<i>niv.3</i>	Association (par associativité ou commutativité).	$21 + 34 + 29$	22
<i>niv.4</i>	Choix de la technique experte entre différente technique.	$346 + 24 + 35 = 405$ : Indique la technique experte	23
<i>niv.5</i>	La technique experte : développe.	$46 + 18 = \dots$ Indique et détaille la technique experte	24

### *module V : nombres décimaux :*

<i>niv.1</i>	Nombre à une décimale : additions, soustractions et compléments à l'unité.	$7,3 + 1 = 8,3$	25
<i>niv.2</i>	Nombre à deux décimales : additions, soustractions et compléments à l'unité.	$3,45 + 2,1 = 5,55$	26
<i>niv.3</i>	Additions et soustractions ; encadrement.	$37 + 3,377 = 40,377$	27
<i>niv.4</i>	Décomposer pour additionner ou soustraire jusqu'au 0,1.	$7,3 + 1,8 = 7,3 + 1,7 + 0,1 = 9,1$	28
<i>niv.5</i>	Additions et soustractions de 0,01 à 100.	$23,45 + 45,7 = 69,15$	29

### *module VI: nombres entiers*

<i>niv.1</i>	Additions et soustractions des entiers - 2 termes.	$5 - 7 = -2$	30
<i>niv.2</i>	Additions et soustractions (2 termes - avec successions de signes).	$(+45) - (-7) = 52$	31
<i>niv.3</i>	Additions et soustractions plus de 2 termes.	$-16 - (-17) - (-14) - 3 = 12$	33



niv.1 : Additions et soustractions → 10.



	addition	soustraction	complément	mix	
1	$5 + 3 = \dots$	$10 - 1 = \dots$	$5 + \dots = 9$	$3 + 5 = \dots$	1
2	$3 + 2 = \dots$	$9 - 6 = \dots$	$\dots + 4 = 10$	$2 + 3 = \dots$	2
3	$7 + 1 = \dots$	$8 - 4 = \dots$	$8 = 5 + \dots$	$5 + \dots = 10$	3
4	$6 + 3 = \dots$	$6 - 3 = \dots$	$\dots + 4 = 8$	$7 - 2 = \dots$	4
5	$2 + 1 = \dots$	$5 - 4 = \dots$	$3 + \dots = 7$	$5 - 4 = \dots$	5
6	$3 + 4 = \dots$	$7 - 2 = \dots$	$5 = \dots + 0$	$\dots + 8 = 10$	6
7	$2 + 6 = \dots$	$10 - 2 = \dots$	$\dots + 1 = 7$	$4 + 5 = \dots$	7
8	$4 + 3 = \dots$	$10 - 7 = \dots$	$8 + \dots = 8$	$4 - 2 = \dots$	8
9	$1 + 5 = \dots$	$3 - 2 = \dots$	$9 - \dots = 5$	$\dots + 5 = 6$	9
10	$7 + 2 = \dots$	$6 - 3 = \dots$	$8 = 1 + \dots$	$2 + 6 = \dots$	10
11	$3 + 3 = \dots$	$9 - 5 = \dots$	$2 + \dots = 6$	$9 - 5 = \dots$	11
12	$4 + 5 = \dots$	$7 - 4 = \dots$	$6 + \dots = 9$	$4 + \dots = 6$	12
13	$2 + 7 = \dots$	$7 - 3 = \dots$	$9 = 3 + \dots$	$6 + 1 = \dots$	13
14	$6 + 1 = \dots$	$8 - 4 = \dots$	$6 = 6 + \dots$	$5 - 4 = \dots$	14
15	$5 + 3 = \dots$	$5 - 4 = \dots$	$1 + \dots = 8$	$8 + \dots = 9$	15
16	$3 + 1 = \dots$	$2 - 1 = \dots$	$6 + \dots = 9$	$3 + 2 = \dots$	16
17	$4 + 3 = \dots$	$7 - 3 = \dots$	$4 = 1 + \dots$	$5 - 1 = \dots$	17
18	$7 + 1 = \dots$	$8 - 6 = \dots$	$6 = 3 + \dots$	$9 = 7 + \dots$	18
19	$3 + 2 = \dots$	$9 - 8 = \dots$	$\dots + 3 = 8$	$3 + 5 = \dots$	19
20	$4 + 5 = \dots$	$8 - 2 = \dots$	$\dots + 2 = 9$	$7 - 5 = \dots$	20
21	$1 + 2 = \dots$	$8 - 3 = \dots$	$1 + \dots = 4$	$3 + \dots = 4$	21
22	$3 + 4 = \dots$	$9 - 7 = \dots$	$6 = 2 + \dots$	$6 = 2 + \dots$	22
23	$7 + 2 = \dots$	$7 - 5 = \dots$	$7 = 1 + \dots$	$5 = 1 + \dots$	23
24	$2 + 5 = \dots$	$9 - 4 = \dots$	$\dots + 5 = 8$	$\dots + 9 = 9$	24
25	$4 + 3 = \dots$	$5 - 3 = \dots$	$\dots + 2 = 6$	$\dots + 1 = 8$	25
26	$5 + 4 = \dots$	$6 - 2 = \dots$	$4 + \dots = 9$	$2 + \dots = 3$	26
27	$8 + 1 = \dots$	$8 - 7 = \dots$	$3 - \dots = 1$	$3 - \dots = 1$	27
28	$3 + 3 = \dots$	$9 - 1 = \dots$	$2 = 5 - \dots$	$2 = 7 - \dots$	28
29	$2 + 3 = \dots$	$4 - 2 = \dots$	$9 = 1 + \dots$	$9 = 7 + \dots$	29
30	$4 + 1 = \dots$	$8 - 3 = \dots$	$9 - 6 = \dots$	$4 + 5 = \dots$	30



niv.2 : Additions et soustractions → 20 (sans passage par la dizaine).



	addition	soustraction	complément	mix	
1	12 + 7 = ...	15 - 3 = ...	... + 15 = 17	16 = 11 + ...	1
2	6 + 3 = ...	15 - 4 = ...	18 = 17 + ...	3 + 6 = ...	2
3	11 + 8 = ...	6 - 2 = ...	19 + ... = 19	16 = 14 + ...	3
4	8 + 1 = ...	9 - 0 = ...	16 = 15 + ...	13 - 2 = ...	4
5	14 + 4 = ...	13 - 2 = ...	14 + ... = 19	12 - 1 = ...	5
6	11 + 5 = ...	8 - 6 = ...	13 - ... = 11	13 + 5 = ...	6
7	8 + 1 = ...	8 - 6 = ...	2 = 5 - ...	2 - 0 = ...	7
8	13 + 5 = ...	5 - 4 = ...	19 = 18 + ...	17 = ... + 15	8
9	15 + 2 = ...	15 - 3 = ...	19 - 6 = ...	3 + 6 = ...	9
10	5 + 4 = ...	7 - 7 = ...	11 + ... = 19	18 - 7 = ...	10
11	12 + 7 = ...	9 - 7 = ...	16 + ... = 18	11 + ... = 19	11
12	3 + 6 = ...	16 - 5 = ...	19 = 15 + ...	11 + 5 = ...	12
13	13 + 4 = ...	9 - 4 = ...	18 = 15 + ...	9 - 5 = ...	13
14	5 + 4 = ...	9 - 8 = ...	12 - ... = 10	17 = 13 + ...	14
15	11 + 8 = ...	8 - 4 = ...	10 + ... = 17	12 + 5 = ...	15
16	12 + 3 = ...	13 - 3 = ...	9 = 8 + ...	15 - 1 = ...	16
17	14 + 4 = ...	16 - 4 = ...	19 - ... = 15	9 = ... + 6	17
18	3 + 4 = ...	7 - 4 = ...	17 + ... = 19	5 + 3 = ...	18
19	2 + 7 = ...	5 - 2 = ...	16 = 13 + ...	14 - 4 = ...	19
20	12 + 5 = ...	17 - 2 = ...	18 - ... = 12	... + 9 = 9	20
21	12 + 7	9 - 5 = ...	19 = 18 + ...	7 = 2 + ...	21
22	1 + 7 = ...	14 - 3 = ...	15 - ... = 14	19 - ... = 14	22
23	16 + 2 = ...	17 - 7 = ...	11 + ... = 19	12 + ... = 17	23
24	10 + 8 = ...	15 - 2 = ...	11 = 10 + ...	16 = 10 + ...	24
25	8 + 1 = ...	9 - 2 = ...	16 - ... = 14	15 - ... = 14	25
26	14 + 5 = ...	3 - 3 = ...	17 = 11 + ...	13 = 12 + ...	26
27	13 + 5 = ...	17 - 3 = ...	18 - ... = 15	16 - ... = 12	27
28	10 + 1 = ...	5 - 4 = ...	12 + ... = 19	10 + ... = 16	28
29	13 + 6 = ...	13 - 2 = ...	15 = 11 + ...	12 = 10 + ...	29
30	11 + 4 = ...	11 - 1 = ...	16 - ... = 11	14 - ... = 10	30



niv.3 : Additions et soustractions →20 (avec passage par la dizaine).



	addition	soustraction	complément	mix	
1	$9 + 6 = \dots$	$20 - 11 = \dots$	$\dots + 3 = 20$	$14 + \dots = 20$	1
2	$6 + 6 = \dots$	$15 - 6 = \dots$	$20 = 7 + \dots$	$9 + 7 = \dots$	2
3	$3 + 8 = \dots$	$16 - 8 = \dots$	$9 + \dots = 20$	$20 = 7 + \dots$	3
4	$8 + 7 = \dots$	$19 - 18 = \dots$	$20 = 15 + \dots$	$13 - 4 = \dots$	4
5	$2 + 9 = \dots$	$13 - 6 = \dots$	$14 + \dots = 20$	$20 - 13 = \dots$	5
6	$5 + 8 = \dots$	$20 - 12 = \dots$	$\dots + 20 = 20$	$7 + 8 = \dots$	6
7	$3 + 9 = \dots$	$14 - 7 = \dots$	$20 = 18 + \dots$	$14 - 6 = \dots$	7
8	$7 + 7 = \dots$	$11 - 5 = \dots$	$20 = 6 + \dots$	$20 = 8 + \dots$	8
9	$9 + 7 = \dots$	$15 - 8 = \dots$	$5 + \dots = 20$	$8 + 4 = \dots$	9
10	$8 + 6 = \dots$	$12 - 7 = \dots$	$11 + \dots = 20$	$15 - 9 = \dots$	10
11	$7 + 5 = \dots$	$17 - 8 = \dots$	$20 = 12 + \dots$	$6 + \dots = 20$	11
12	$5 + 5 = \dots$	$14 - 9 = \dots$	$20 = 9 + \dots$	$5 + 9 = \dots$	12
13	$9 + 8 = \dots$	$13 - 4 = \dots$	$13 + \dots = 20$	$12 - 5 = \dots$	13
14	$6 + 9 = \dots$	$11 - 2 = \dots$	$1 + \dots = 20$	$3 + \dots = 20$	14
15	$6 + 5 = \dots$	$16 - 9 = \dots$	$20 = 10 + \dots$	$6 + 5 = \dots$	15
16	$5 + 9 = \dots$	$11 - 6 = \dots$	$20 = 3 + \dots$	$14 - 9 = \dots$	16
17	$4 + 6 = \dots$	$17 - 9 = \dots$	$11 + \dots = 20$	$20 = 5 + \dots$	17
18	$3 + 8 = \dots$	$15 - 6 = \dots$	$14 + \dots = 20$	$8 + 3 = \dots$	18
19	$7 + 8 = \dots$	$12 - 4 = \dots$	$20 = 12 + \dots$	$13 - 6 = \dots$	19
20	$9 + 9 = \dots$	$13 - 8 = \dots$	$20 = 19 + \dots$	$20 = 7 + \dots$	20



niv.4 : Additions et soustractions → 40 (avec passage par la dizaine).



	addition	soustraction	complément	mix	
1	17 + 5 = ...	23 - 15 = ...	16 + 17 = ...	23 - 5 = ...	1
2	12 - 4 = ...	26 - 8 = ...	21 - 8 = ...	8 + 5 = ...	2
3	19 + 16 = ...	20 + 16 = ...	13 - 2 = ...	17 - 7 = ...	3
4	25 - 18 = ...	2 + 13 = ...	33 - 17 = ...	20 - 10 = ...	4
5	13 + 17 = ...	22 - 10 = ...	2 + 10 = ...	15 - 9 = ...	5
6	29 - 14 = ...	14 + 14 = ...	31 - 18 = ...	9 + 6 = ...	6
7	30 - 11 = ...	12 + 13 = ...	20 - 17 = ...	2 + 17 = ...	7
8	6 + 7 = ...	21 - 15 = ...	16 + 20 = ...	13 + 17 = ...	8
9	35 - 20 = ...	10 + 18 = ...	19 + 11 = ...	3 + 2 = ...	9
10	18 - 16 = ...	17 + 7 = ...	5 + 18 = ...	34 - 17 = ...	10
11	19 + 5 = ...	21 - 3 = ...	16 - 13 = ...	12 + 7 = ...	11
12	25 - 16 = ...	2 + 17 = ...	21 - 10 = ...	14 + 20 = ...	12
13	12 + 6 = ...	10 - 4 = ...	10 + 2 = ...	2 + 6 = ...	13
14	8 + 3 = ...	10 + 5 = ...	32 - 13 = ...	26 - 13 = ...	14
15	19 - 6 = ...	12 - 5 = ...	15 + 19 = ...	9 + 14 = ...	15
16	20 - 15 = ...	7 - 2 = ...	22 - 5 = ...	22 - 4 = ...	16
17	10 + 8 = ...	20 + 14 = ...	8 + 7 = ...	19 + 2 = ...	17
18	20 + 2 = ...	18 - 10 = ...	22 - 4 = ...	7 + 13 = ...	18
19	8 + 11 = ...	15 + 17 = ...	13 + 16 = ...	12 - 4 = ...	19
20	10 + 5 = ...	16 + 8 = ...	16 + 5 = ...	17 - 13 = ...	20



niv.5 : Additions et soustractions → 100 (sans passage par la dizaine).



	addition	soustraction	complément	mix	
1	$85 + 14 = \dots$	$100 - 50 = \dots$	$20 + \dots = 100$	$35 + 43 = \dots$	1
2	$71 + 8 = \dots$	$59 - 39 = \dots$	$100 - \dots = 70$	$82 + 14 = \dots$	2
3	$23 + 6 = \dots$	$98 - 44 = \dots$	$30 + \dots = 100$	$100 = 35 + \dots$	3
4	$35 + 43 = \dots$	$66 - 23 = \dots$	$80 + \dots = 100$	$40 + \dots = 100$	4
5	$23 + 72 = \dots$	$55 - 14 = \dots$	$90 + \dots = 100$	$98 - 44 = \dots$	5
6	$17 + 81 = \dots$	$47 - 22 = \dots$	$100 = 50 + \dots$	$47 - 22 = \dots$	6
7	$32 + 44 = \dots$	$88 - 66 = \dots$	$100 - \dots = 80$	$42 + 26 = \dots$	7
8	$62 + 22 = \dots$	$99 - 28 = \dots$	$100 - \dots = 90$	$88 - 35 = \dots$	8
9	$48 + 11 = \dots$	$57 - 34 = \dots$	$100 = 60 + \dots$	$100 - \dots = 65$	9
10	$54 + 34 = \dots$	$63 - 42 = \dots$	$100 = 10 + \dots$	$54 + 12 = \dots$	10
11	$23 + 25 = \dots$	$72 - 50 = \dots$	$75 + \dots = 100$	$47 - 23 = \dots$	11
12	$84 + 12 = \dots$	$47 - 35 = \dots$	$100 - \dots = 15$	$100 - \dots = 45$	12
13	$14 + 52 = \dots$	$38 - 14 = \dots$	$100 = 55 + \dots$	$65 + 13 = \dots$	13
14	$34 + 21 = \dots$	$27 - 15 = \dots$	$100 = 35 + \dots$	$54 - 33 = \dots$	14
15	$46 + 23 = \dots$	$17 - 12 = \dots$	$100 - \dots = 65$	$\dots + 25 = 100$	15
16	$81 + 14 = \dots$	$84 - 22 = \dots$	$100 - \dots = 25$	$82 + 14 = \dots$	16
17	$22 + 14 = \dots$	$97 - 51 = \dots$	$100 = 5 + \dots$	$27 - 12 = \dots$	17
18	$15 + 64 = \dots$	$38 - 26 = \dots$	$100 = \dots + 85$	$100 = 15 + \dots$	18
19	$23 + 75 = \dots$	$83 - 62 = \dots$	$100 - \dots = 35$	$12 + 26 = \dots$	19
20	$25 + 61 = \dots$	$76 - 54 = \dots$	$100 - \dots = 55$	$38 - 17 = \dots$	20



# module I

naturels → 100



niv.6 : Additions et soustractions → 100 (avec passage par la dizaine).



	addition	soustraction	
1	$18 + 64 = \dots$	$43 - 16 = \dots$	1
2	$37 + 68 = \dots$	$97 - 38 = \dots$	2
3	$69 + 14 = \dots$	$76 - 39 = \dots$	3
4	$22 + 74 = \dots$	$91 - 45 = \dots$	4
5	$27 + 65 = \dots$	$30 - 11 = \dots$	5
6	$64 + 27 = \dots$	$34 - 9 = \dots$	6
7	$14 + 67 = \dots$	$56 - 19 = \dots$	7
8	$33 + 38 = \dots$	$87 - 11 = \dots$	8
9	$56 + 18 = \dots$	$23 - 21 = \dots$	9
10	$48 + 35 = \dots$	$62 - 35 = \dots$	10
11	$56 + 35 = \dots$	$44 - 28 = \dots$	11
12	$67 + 24 = \dots$	$36 - 17 = \dots$	12
13	$56 + 16 = \dots$	$44 - 25 = \dots$	13
14	$27 + 35 = \dots$	$35 - 18 = \dots$	14
15	$78 + 14 = \dots$	$54 - 5 = \dots$	15
16	$36 + 48 = \dots$	$97 - 18 = \dots$	16
17	$43 + 58 = \dots$	$34 - 16 = \dots$	17
18	$18 + 27 = \dots$	$84 - 7 = \dots$	18
19	$45 + 37 = \dots$	$55 - 37 = \dots$	19
20	$84 + 8 = \dots$	$57 - 15 = \dots$	20



niv.7 : Compléments à 10 et à 100.



	à 10	à 100 (par 10)	à 100 (par 5)	à 100 (par 1)	
1	$5 + \dots = 10$	$20 + \dots = 100$	$75 + \dots = 100$	$32 + \dots = 100$	1
2	$\dots + 4 = 10$	$100 - \dots = 70$	$100 - \dots = 15$	$64 + \dots = 100$	2
3	$10 = 5 + \dots$	$30 + \dots = 100$	$100 = 55 + \dots$	$100 = 18 + \dots$	3
4	$\dots + 8 = 10$	$80 + \dots = 100$	$100 = 35 + \dots$	$100 = 56 + \dots$	4
5	$3 + \dots = 10$	$90 + \dots = 100$	$100 - \dots = 65$	$75 + \dots = 100$	5
6	$10 = \dots + 2$	$100 = 50 + \dots$	$100 - \dots = 25$	$100 - \dots = 87$	6
7	$\dots + 7 = 10$	$100 - \dots = 80$	$100 = 5 + \dots$	$100 - \dots = 74$	7
8	$4 + \dots = 10$	$100 - \dots = 90$	$100 = \dots + 85$	$17 + \dots = 100$	8
9	$10 - \dots = 5$	$100 = 60 + \dots$	$100 - \dots = 35$	$53 + \dots = 100$	9
10	$10 = 1 + \dots$	$100 = 10 + \dots$	$100 - \dots = 55$	$100 - \dots = 22$	10
11	$2 + \dots = 10$	$30 + \dots = 100$	$85 + \dots = 100$	$100 - \dots = 47$	11
12	$7 + \dots = 10$	$100 - \dots = 80$	$100 - \dots = 25$	$100 = \dots + 34$	12
13	$10 = 5 + \dots$	$40 + \dots = 100$	$100 = 65 + \dots$	$100 = \dots + 82$	13
14	$10 = 6 + \dots$	$90 + \dots = 100$	$100 = 45 + \dots$	$100 - \dots = 27$	14
15	$9 + \dots = 10$	$100 + \dots = 100$	$100 - \dots = 75$	$100 - \dots = 33$	15
16	$8 + \dots = 10$	$100 = 60 + \dots$	$100 - \dots = 85$	$100 = 88 + \dots$	16
17	$10 = 4 + \dots$	$100 - \dots = 90$	$100 = 15 + \dots$	$100 = 17 + \dots$	17
18	$10 = 3 + \dots$	$100 - \dots = 100$	$100 = \dots + 95$	$57 + \dots = 100$	18
19	$\dots + 5 = 10$	$100 = 70 + \dots$	$100 - \dots = 45$	$44 + \dots = 100$	19
20	$\dots + 2 = 10$	$100 = 20 + \dots$	$100 - \dots = 65$	$100 - \dots = 32$	20



niv.1 : Additions et soustractions de dizaines (D +/- D).



	addition	soustraction	mix	
1	$80 + 70 = \dots$	$160 - 40 = \dots$	$140 - 30 = \dots$	1
2	$50 + 50 = \dots$	$140 - 100 = \dots$	$30 + 120 = \dots$	2
3	$90 + 20 = \dots$	$140 - 40 = \dots$	$180 - \dots = 110$	3
4	$130 + 40 = \dots$	$130 - 120 = \dots$	$70 + 130 = \dots$	4
5	$50 + 50 = \dots$	$150 - 110 = \dots$	$140 - 120 = \dots$	5
6	$40 + 40 = \dots$	$190 - 110 = \dots$	$\dots - 60 = 110$	6
7	$170 + 70 = \dots$	$130 - 70 = \dots$	$130 - 80 = \dots$	7
8	$10 + 80 = \dots$	$160 - 20 = \dots$	$50 + 60 = \dots$	8
9	$170 + 80 = \dots$	$150 - 70 = \dots$	$\dots + 150 = 220$	9
10	$50 + 30 = \dots$	$130 - 40 = \dots$	$120 + 110 = \dots$	10
11	$190 + 30 = \dots$	$190 - 50 = \dots$	$150 - 90 = \dots$	11
12	$190 + 110 = \dots$	$150 - 40 = \dots$	$120 - \dots = 70$	12
13	$120 + 70 = \dots$	$170 - 100 = \dots$	$180 - 90 = \dots$	13
14	$60 + 120 = \dots$	$150 - 80 = \dots$	$170 + 120 = \dots$	14
15	$80 + 90 = \dots$	$130 - 110 = \dots$	$60 + \dots = 200$	15
16	$180 + 20 = \dots$	$160 - 60 = \dots$	$90 + 50 = \dots$	16
17	$30 + 50 = \dots$	$140 - 50 = \dots$	$130 - 90 = \dots$	17
18	$10 + 90 = \dots$	$170 - 60 = \dots$	$190 + \dots = 310$	18
19	$150 + 40 = \dots$	$130 - 100 = \dots$	$180 + 30 = \dots$	19
20	$70 + 90 = \dots$	$170 - 50 = \dots$	$180 - 50 = \dots$	20



niv.2 : Additions et soustractions sans passage jusqu'à 1000.



	addition	soustraction	mix	
1	$830 + 100 = \dots$	$353 - 120 = \dots$	$540 - 330 = \dots$	1
2	$135 + 673 = \dots$	$268 - 122 = \dots$	$34 + 123 = \dots$	2
3	$820 + 140 = \dots$	$1000 - 500 = \dots$	$585 - \dots = 112$	3
4	$715 + 80 = \dots$	$892 - 660 = \dots$	$370 + 133 = \dots$	4
5	$235 + 460 = \dots$	$987 - 444 = \dots$	$640 - 120 = \dots$	5
6	$352 + 437 = \dots$	$663 - 231 = \dots$	$\dots - 60 = 415$	6
7	$230 + 720 = \dots$	$550 - 140 = \dots$	$765 - 524 = \dots$	7
8	$177 + 811 = \dots$	$475 - 221 = \dots$	$340 + 605 = \dots$	8
9	$550 + 220 = \dots$	$286 - 131 = \dots$	$\dots + 250 = 570$	9
10	$251 + 714 = \dots$	$618 - 455 = \dots$	$520 + 152 = \dots$	10
11	$680 + 310 = \dots$	$328 - 241 = \dots$	$551 - 20 = \dots$	11
12	$322 + 181 = \dots$	$727 - 343 = \dots$	$120 - \dots = 70$	12
13	$730 + 250 = \dots$	$886 - 655 = \dots$	$885 - 443 = \dots$	13
14	$432 + 547 = \dots$	$925 - 553 = \dots$	$170 + 120 = \dots$	14
15	$180 + 450 = \dots$	$424 - 310 = \dots$	$160 + \dots = 888$	15
16	$531 + 210 = \dots$	$564 - 431 = \dots$	$490 + 508 = \dots$	16
17	$310 + 272 = \dots$	$423 - 242 = \dots$	$797 - 523 = \dots$	17
18	$223 + 190 = \dots$	$632 - 480 = \dots$	$140 + \dots = 370$	18
19	$440 + 174 = \dots$	$341 - 240 = \dots$	$183 + 430 = \dots$	19
20	$645 + 190 = \dots$	$575 - 183 = \dots$	$185 - 50 = \dots$	20



niv.3 : Compléments jusqu'à 1000.



	par 10	par unité	complément jusqu'à 1000	
1	$120 + \dots = 1000$	$193 + \dots = 1000$	390 pour aller à 400 : ...	1
2	$1000 - \dots = 630$	$1000 = 341 + \dots$	519 pour aller à 600 : ...	2
3	$190 + \dots = 1000$	$626 + \dots = 1000$	986 pour aller à 1000 : ...	3
4	$1000 = 340 + \dots$	$892 + \dots = 1000$	636 pour aller à 700 : ...	4
5	$460 + \dots = 1000$	$961 + \dots = 1000$	994 pour aller à 1000 : ...	5
6	$830 + \dots = 1000$	$1000 = 229 + \dots$	858 pour aller à 900 : ...	6
7	$990 + \dots = 1000$	$1000 = 347 + \dots$	677 pour aller à 700 : ...	7
8	$1000 = 550 + \dots$	$1000 - \dots = 874$	235 pour aller à 300 : ...	8
9	$1000 - \dots = 740$	$1000 - \dots = 378$	955 pour aller à 1000 : ...	9
10	$240 + \dots = 1000$	$125 + \dots = 1000$	330 pour aller à 400 : ...	10
11	$670 + \dots = 1000$	$1000 = 495 + \dots$	529 pour aller à 600 : ...	11
12	$1000 = 570 + \dots$	$1000 = 165 + \dots$	969 pour aller à 1000 : ...	12
13	$1000 = 380 + \dots$	$1000 = \dots + 233$	141 pour aller à 200 : ...	13
14	$1000 - \dots = 810$	$685 + \dots = 1000$	748 pour aller à 800 : ...	14
15	$1000 - \dots = 750$	$725 + \dots = 1000$	425 pour aller à 500 : ...	15
16	$640 + \dots = 1000$	$1000 = 555 + \dots$	904 pour aller à 1000 : ...	16
17	$270 + \dots = 1000$	$324 + \dots = 1000$	803 pour aller à 900 : ...	17
18	$1000 = 360 + \dots$	$712 + \dots = 1000$	354 pour aller à 400 : ...	18
19	$1000 = \dots + 550$	$1000 = \dots + 651$	994 pour aller à 1000 : ...	19
20	$1000 - \dots = 360$	$900 = 625 + \dots$	155 pour aller à 200 : ...	20



niv.4 : Additions et soustractions avec passage jusqu'à 1000.



	addition	soustraction	complément	
1	$325 + 575 = \dots$	$460 - 95 = \dots$	$435 + \dots = 562$	1
2	$435 + 270 = \dots$	$215 - 130 = \dots$	$725 + \dots = 994$	2
3	$605 + 215 = \dots$	$650 - 165 = \dots$	$1000 = 555 + \dots$	3
4	$195 + 120 = \dots$	$735 - 325 = \dots$	$902 = 625 + \dots$	4
5	$235 + 345 = \dots$	$350 - 125 = \dots$	$535 + \dots = 801$	5
6	$99 + 840 = \dots$	$998 - 99 = \dots$	$990 + \dots = 1000$	6
7	$679 + 212 = \dots$	$164 - 56 = \dots$	$910 = 550 + \dots$	7
8	$768 + 99 = \dots$	$783 - 99 = \dots$	$1000 - \dots = 740$	8
9	$345 + 116 = \dots$	$496 - 242 = \dots$	$193 + \dots = 1000$	9
10	$546 + 101 = \dots$	$546 - 101 = \dots$	$500 = 341 + \dots$	10
11	$345 + 99 = \dots$	$345 - 101 = \dots$	$626 + \dots = 955$	11
12	$375 + 150 = \dots$	$362 - 50 = \dots$	$892 + \dots = 900$	12
13	$623 + 169 = \dots$	$437 - 50 = \dots$	$161 + \dots = 310$	13
14	$379 + 118 = \dots$	$239 - 138 = \dots$	$820 = 229 + \dots$	14
15	$134 + 128 = \dots$	$897 - 350 = \dots$	$506 = 347 + \dots$	15
16	$215 + 318 = \dots$	$654 - 234 = \dots$	$902 - \dots = 874$	16
17	$252 + 139 = \dots$	$894 - 365 = \dots$	$834 - \dots = 378$	17
18	$345 + 135 = \dots$	$798 - 354 = \dots$	$324 + \dots = 1000$	18
19	$309 + 101 = \dots$	$565 - 237 = \dots$	$712 + \dots = 801$	19
20	$245 + 136 = \dots$	$652 - 50 = \dots$	$234 + \dots = 832$	20

# module II

compensation → 1000



niv.5 : Compensation jusqu'à 1000.



	addition	soustraction	
1	$305 + 145 = \dots$	$710 - 110 = \dots$	1
2	$351 + 99 = \dots$	$435 - 305 = \dots$	2
3	$670 + 99 = \dots$	$349 - 219 = \dots$	3
4	$526 + 144 = \dots$	$1399 - 654 = \dots$	4
5	$197 + 563 = \dots$	$456 - 99 = \dots$	5
6	$468 + 512 = \dots$	$217 - 199 = \dots$	6
7	$713 + 199 = \dots$	$520 - 108 = \dots$	7
8	$369 + 101 = \dots$	$315 - 145 = \dots$	8
9	$418 + 127 = \dots$	$967 - 599 = \dots$	9
10	$133 + 199 = \dots$	$240 - 137 = \dots$	10
11	$217 + 313 = \dots$	$499 - 148 = \dots$	11
12	$166 + 314 = \dots$	$234 - 101 = \dots$	12
13	$327 + 101 = \dots$	$679 - 501 = \dots$	13
14	$584 + 101 = \dots$	$354 - 299 = \dots$	14
15	$113 + 99 = \dots$	$767 - 499 = \dots$	15
16	$424 + 206 = \dots$	$416 - 201 = \dots$	16
17	$708 + 112 = \dots$	$560 - 257 = \dots$	17
18	$237 + 301 = \dots$	$980 - 434 = \dots$	18
19	$645 + 99 = \dots$	$574 - 301 = \dots$	19
20	$308 + 202 = \dots$	$515 - 299 = \dots$	20

# module II

compensation → 10000



niv.6 : Compensation jusqu'à 10 000.



	addition	soustraction	
1	$298 + 147 = \dots$	$6779 - 999 = \dots$	1
2	$345 + 999 = \dots$	$5404 - 2004 = \dots$	2
3	$670 + 999 = \dots$	$1736 - 299 = \dots$	3
4	$546 + 954 = \dots$	$2399 - 654 = \dots$	4
5	$1197 + 563 = \dots$	$3456 - 1999 = \dots$	5
6	$8262 + 248 = \dots$	$9788 - 1201 = \dots$	6
7	$3654 + 346 = \dots$	$7952 - 4899 = \dots$	7
8	$388 + 1132 = \dots$	$8950 - 4206 = \dots$	8
9	$1999 + 256 = \dots$	$5487 - 3999 = \dots$	9
10	$974 + 116 = \dots$	$3544 - 799 = \dots$	10
11	$399 + 1842 = \dots$	$4450 - 367 = \dots$	11
12	$597 + 233 = \dots$	$2180 - 438 = \dots$	12
13	$1805 + 999 = \dots$	$6874 - 2001 = \dots$	13
14	$2542 + 188 = \dots$	$5408 - 3401 = \dots$	14
15	$384 + 1216 = \dots$	$2405 - 1999 = \dots$	15
16	$6843 + 699 = \dots$	$3400 - 3141 = \dots$	16
17	$762 + 1238 = \dots$	$8406 - 4399 = \dots$	17
18	$487 + 4033 = \dots$	$6470 - 701 = \dots$	18
19	$1794 + 586 = \dots$	$4020 - 2006 = \dots$	19
20	$958 + 477 = \dots$	$3547 - 1999 = \dots$	20





niv.1 : Ajouter ou soustraire 10 ou 100.



	10	10	100	100	
1	$52 + 10 = \dots$	$183 - 10 = \dots$	$538 + 100 = \dots$	$440 - 100 = \dots$	1
2	$145 + 10 = \dots$	$88 - 10 = \dots$	$974 + 100 = \dots$	$814 - 100 = \dots$	2
3	$154 + 10 = \dots$	$107 - 10 = \dots$	$708 + 100 = \dots$	$839 - 100 = \dots$	3
4	$65 + 10 = \dots$	$140 - 10 = \dots$	$97 + 100 = \dots$	$697 - 100 = \dots$	4
5	$201 + 10 = \dots$	$217 - 10 = \dots$	$659 + 100 = \dots$	$542 - 100 = \dots$	5
6	$227 + 10 = \dots$	$136 - 10 = \dots$	$807 + 100 = \dots$	$551 - 100 = \dots$	6
7	$230 + 10 = \dots$	$111 - 10 = \dots$	$922 + 100 = \dots$	$185 - 100 = \dots$	7
8	$192 + 10 = \dots$	$53 - 10 = \dots$	$406 + 100 = \dots$	$738 - 100 = \dots$	8
9	$113 + 10 = \dots$	$226 - 10 = \dots$	$302 + 100 = \dots$	$436 - 100 = \dots$	9
10	$102 + 10 = \dots$	$120 - 10 = \dots$	$105 + 100 = \dots$	$852 - 100 = \dots$	10
11	$155 + 10 = \dots$	$80 - 10 = \dots$	$904 + 100 = \dots$	$266 - 100 = \dots$	11
12	$178 + 10 = \dots$	$156 - 10 = \dots$	$591 + 100 = \dots$	$563 - 100 = \dots$	12
13	$140 + 10 = \dots$	$199 - 10 = \dots$	$451 + 100 = \dots$	$113 - 100 = \dots$	13
14	$54 + 10 = \dots$	$161 - 10 = \dots$	$745 + 100 = \dots$	$745 - 100 = \dots$	14
15	$96 + 10 = \dots$	$160 - 10 = \dots$	$651 + 100 = \dots$	$58 - 100 = \dots$	15
16	$125 + 10 = \dots$	$101 - 10 = \dots$	$297 + 100 = \dots$	$580 - 100 = \dots$	16
17	$170 + 10 = \dots$	$130 - 10 = \dots$	$329 + 100 = \dots$	$584 - 100 = \dots$	17
18	$44 + 10 = \dots$	$86 - 10 = \dots$	$827 + 100 = \dots$	$732 - 100 = \dots$	18
19	$66 + 10 = \dots$	$78 - 10 = \dots$	$369 + 100 = \dots$	$809 - 100 = \dots$	19
20	$105 + 10 = \dots$	$127 - 10 = \dots$	$608 + 100 = \dots$	$103 - 100 = \dots$	20



niv.2 : Ajouter ou soustraire 9 ou 11.

	<b>+ 9</b>	<b>- 9</b>	<b>+ 11</b>	<b>- 11</b>	
1	52 + 9 = ...	183 - 9 = ...	538 + 11 = ...	440 - 11 = ...	1
2	145 + 9 = ...	88 - 9 = ...	974 + 11 = ...	183 - 11 = ...	2
3	154 + 9 = ...	107 - 9 = ...	708 + 11 = ...	88 - 11 = ...	3
4	65 + 9 = ...	140 - 9 = ...	97 + 11 = ...	107 - 11 = ...	4
5	201 + 9 = ...	217 - 9 = ...	659 + 11 = ...	140 - 11 = ...	5
6	227 + 9 = ...	136 - 9 = ...	807 + 11 = ...	217 - 11 = ...	6
7	230 + 9 = ...	111 - 9 = ...	922 + 11 = ...	136 - 11 = ...	7
8	192 + 9 = ...	53 - 9 = ...	406 + 11 = ...	111 - 11 = ...	8
9	113 + 9 = ...	226 - 9 = ...	302 + 11 = ...	53 - 11 = ...	9
10	102 + 9 = ...	120 - 9 = ...	105 + 11 = ...	226 - 11 = ...	10
11	155 + 9 = ...	80 - 9 = ...	904 + 11 = ...	120 - 11 = ...	11
12	178 + 9 = ...	156 - 9 = ...	591 + 11 = ...	156 - 11 = ...	12
13	140 + 9 = ...	199 - 9 = ...	451 + 11 = ...	199 - 11 = ...	13
14	54 + 9 = ...	161 - 9 = ...	745 + 11 = ...	161 - 11 = ...	14
15	96 + 9 = ...	160 - 9 = ...	651 + 11 = ...	160 - 11 = ...	15
16	125 + 9 = ...	101 - 9 = ...	297 + 11 = ...	101 - 11 = ...	16
17	170 + 9 = ...	130 - 9 = ...	329 + 11 = ...	130 - 11 = ...	17
18	44 + 9 = ...	86 - 9 = ...	827 + 11 = ...	86 - 11 = ...	18
19	66 + 9 = ...	78 - 9 = ...	369 + 11 = ...	78 - 11 = ...	19
20	105 + 9 = ...	127 - 9 = ...	608 + 11 = ...	127 - 11 = ...	20



niv.3 : Ajouter ou soustraire 99 ou 101.



	99	99	101	101	
1	$388 + 99 = \dots$	$501 - 99 =$	$273 + 101 =$	$745 - 101 =$	1
2	$570 + 99 = \dots$	$738 - 99 = \dots$	$591 + 101 = \dots$	$440 - 101 = \dots$	2
3	$347 + 99 = \dots$	$436 - 99 = \dots$	$451 + 101 = \dots$	$814 - 101 = \dots$	3
4	$849 + 99 = \dots$	$852 - 99 = \dots$	$745 + 101 = \dots$	$839 - 101 = \dots$	4
5	$505 + 99 = \dots$	$266 - 99 = \dots$	$651 + 101 = \dots$	$697 - 101 = \dots$	5
6	$173 + 99 = \dots$	$563 - 99 = \dots$	$297 + 101 = \dots$	$542 - 101 = \dots$	6
7	$407 + 99 = \dots$	$113 - 99 = \dots$	$329 + 101 = \dots$	$551 - 101 = \dots$	7
8	$649 + 99 = \dots$	$745 - 99 = \dots$	$827 + 101 = \dots$	$185 - 101 = \dots$	8
9	$847 + 99 = \dots$	$558 - 99 = \dots$	$369 + 101 = \dots$	$738 - 101 = \dots$	9
10	$185 + 99 = \dots$	$580 - 99 = \dots$	$608 + 101 = \dots$	$436 - 101 = \dots$	10
11	$346 + 99 = \dots$	$584 - 99 = \dots$	$974 + 101 = \dots$	$852 - 101 = \dots$	11
12	$714 + 99 = \dots$	$732 - 99 = \dots$	$708 + 101 = \dots$	$266 - 101 = \dots$	12
13	$537 + 99 = \dots$	$809 - 99 = \dots$	$97 + 101 = \dots$	$563 - 101 = \dots$	13
14	$870 + 99 = \dots$	$103 - 99 = \dots$	$659 + 101 = \dots$	$113 - 101 = \dots$	14
15	$469 + 99 = \dots$	$814 - 99 = \dots$	$807 + 101 = \dots$	$745 - 101 = \dots$	15
16	$288 + 99 = \dots$	$839 - 99 = \dots$	$922 + 101 = \dots$	$158 - 101 = \dots$	16
17	$256 + 99 = \dots$	$697 - 99 = \dots$	$406 + 101 = \dots$	$580 - 101 = \dots$	17
18	$194 + 99 = \dots$	$542 - 99 = \dots$	$302 + 101 = \dots$	$584 - 101 = \dots$	18
19	$622 + 99 = \dots$	$551 - 99 = \dots$	$105 + 101 = \dots$	$732 - 101 = \dots$	19
20	$535 + 99 = \dots$	$185 - 99 = \dots$	$904 + 101 = \dots$	$809 - 101 = \dots$	20

# module IV

décomposition  $\leq 100$



niv.1 : Décomposer pour additionner ou soustraire.

	addition	soustraction	
1	$18 + 64 = \dots$	$43 - 16 = \dots$	1
2	$37 + 68 = \dots$	$97 - 38 = \dots$	2
3	$69 + 14 = \dots$	$76 - 39 = \dots$	3
4	$22 + 74 = \dots$	$91 - 45 = \dots$	4
5	$27 + 65 = \dots$	$30 - 11 = \dots$	5
6	$64 + 27 = \dots$	$34 - 9 = \dots$	6
7	$14 + 67 = \dots$	$56 - 19 = \dots$	7
8	$33 + 38 = \dots$	$87 - 11 = \dots$	8
9	$56 + 18 = \dots$	$23 - 21 = \dots$	9
10	$48 + 35 = \dots$	$62 - 35 = \dots$	10
11	$56 + 35 = \dots$	$44 - 28 = \dots$	11
12	$67 + 24 = \dots$	$36 - 17 = \dots$	12
13	$56 + 16 = \dots$	$44 - 25 = \dots$	13
14	$27 + 35 = \dots$	$35 - 18 = \dots$	14
15	$78 + 14 = \dots$	$54 - 5 = \dots$	15
16	$36 + 48 = \dots$	$97 - 18 = \dots$	16
17	$43 + 58 = \dots$	$34 - 16 = \dots$	17
18	$18 + 27 = \dots$	$84 - 7 = \dots$	18
19	$45 + 37 = \dots$	$55 - 37 = \dots$	19
20	$84 + 8 = \dots$	$57 - 15 = \dots$	20

# module IV

compensation  $\leq 1000$



niv.2 : Compensation.



	addition	soustraction	
1	$82 + 19 = \dots$	$82 - 19 = \dots$	1
2	$79 + 56 = \dots$	$72 - 58 = \dots$	2
3	$296 + 68 = \dots$	$296 - 68 = \dots$	3
4	$416 + 197 = \dots$	$416 - 197 = \dots$	4
5	$397 + 257 = \dots$	$397 - 257 = \dots$	5
6	$698 + 244 = \dots$	$698 - 244 = \dots$	6
7	$755 + 196 = \dots$	$755 - 196 = \dots$	7
8	$368 + 98 = \dots$	$368 - 98 = \dots$	8
9	$593 + 297 = \dots$	$593 - 297 = \dots$	9
10	$644 + 398 = \dots$	$644 - 398 = \dots$	10
11	$475 + 285 = \dots$	$475 - 285 = \dots$	11
12	$795 + 388 = \dots$	$795 - 388 = \dots$	12
13	$1207 + 799 = \dots$	$1207 - 799 = \dots$	13
14	$324 + 105 = \dots$	$324 - 105 = \dots$	14
15	$396 + 88 = \dots$	$396 - 88 = \dots$	15
16	$453 + 698 = \dots$	$453 - 698 = \dots$	16
17	$851 + 489 = \dots$	$851 - 489 = \dots$	17
18	$718 + 504 = \dots$	$718 - 504 = \dots$	18
19	$513 + 92 = \dots$	$513 - 92 = \dots$	19
20	$298 + 153 = \dots$	$298 - 153 = \dots$	20



niv.3 : Association (par associativité ou commutativité).



	addition	soustraction	
1	$21 + 34 + 29 = \dots$	$69 - 24 - 19 = \dots$	1
2	$35 + 42 + 58 = \dots$	$76 - 23 - 43 = \dots$	2
3	$83 - 53 + 26 = \dots$	$94 - 38 + 28 = \dots$	3
4	$375 + 35 - 70 = \dots$	$984 - 154 + 30 = \dots$	4
5	$778 + 54 + 22 = \dots$	$748 - 25 - 48 = \dots$	5
6	$654 + 46 + 128 = \dots$	$478 - 140 - 38 = \dots$	6
7	$22 + 34 + 28 = \dots$	$69 - 24 - 19 = \dots$	7
8	$678 + 120 + 22 = \dots$	$213 - 80 - 13 = \dots$	8
9	$232 + 48 + 64 + 16 = \dots$	$832 - 150 - 132 = \dots$	9
10	$456 + 15 + 44 + 135 = \dots$	$462 - 162 - 200 = \dots$	10
11	$460 + 250 + 40$	$832 - 25 - 132 = \dots$	11
12	$352 + 231 + 48 + 219 = \dots$	$472 - 36 - 272 = \dots$	12
13	$199 + 201 + 50 = \dots$	$512 - 120 - 112 = \dots$	13
14	$351 + 149 + 22 = \dots$	$582 - 17 - 480 = \dots$	14
15	$328 + 47 + 102 + 23 = \dots$	$526 - 120 - 206 = \dots$	15
16	$439 + 81 + 105 = \dots$	$953 - 84 - 53 - 16 = \dots$	16
17	$460 + 253 + 40 = \dots$	$832 - 26 - 132 = \dots$	17
18	$382 + 190 + 28 = \dots$	$414 - 80 - 4 = \dots$	18
19	$381 + 32 + 199 + 28 = \dots$	$478 - 190 - 38 = \dots$	19
20	$778 + 34 + 22 = \dots$	$748 - 25 - 48 = \dots$	20



niv.4 : Choix de la technique experte entre différente technique.



1	346 + 24 + 35 = 405 ➡ Indique la technique experte			1
	<p>A</p> $300 + 40 + 20 + 30 + 6 + 4 + 5$ $= 300 + 90 + 15$ $= 300 + 105 = 405$	<p>B</p> $346 + 4 + 20 + 35$ $= 350 + 55$ $= 405$	<p>C</p> $346 + 59$ $= 405$	
2	25 + 637 + 42 = 704 ➡ Indique la technique experte			2
	<p>A</p> $637 + 25 + 42$ $= 662 + 42$ $= 704$	<p>B</p> $600 + 20 + 30 + 40 + 5 + 7 + 2$ $= 600 + 90 + 14$ $= 600 + 104 = 704$	<p>C</p> $637 + 25 + 42$ $= 637 + 67$ $= 634 + 70 = 704$	
3	328 - 126 = 202 ➡ Indique la technique experte			3
	<p>A</p> $328 - 6 - 120$ $= 322 - 20 - 100$ $= 302 - 100 = 202$	<p>B</p> $328 - 126$ $= 300 + 28 - 100 - 26$ $= 200 + 2 = 202$	<p>C</p> $328 - 100 - 26$ $= 228 - 26$ $= 202$	
4	18 + 237 - 42 = 213 ➡ Indique la technique experte			4
	<p>A</p> $235 + 20 - 42$ $= 235 - 22$ $= 213$	<p>B</p> $18 + 237 - 42$ $= 255 - 42$ $= 213$	<p>C</p> $18 + 237 - 2 - 30 - 10$ $= 18 + 205 - 10$ $= 18 + 195 = 213$	
5	46 + 107 + 375 + 9 = 537 ➡ Indique la technique experte			5
	<p>A</p> $10 + 45 + 375 + 107$ $= 50 + 380 + 107$ $= 430 + 107 = 537$	<p>B</p> $384 + 46 + 107$ $= 430 + 107$ $= 537$	<p>C</p> $375 + 107 + 55$ $= 482 + 55$ $= 487 + 50 = 537$	

# module IV

technique experte



niv.5 : La technique experte : développe.



	addition	soustraction	
1	$46 + 18 = \dots$	$308 - 195 = \dots$	1
2	$33 + 38 = \dots$	$56 - 19 = \dots$	2
3	$56 + 18 = \dots$	$87 - 11 = \dots$	3
4	$21 + 34 + 29 = \dots$	$478 - 190 - 38 = \dots$	4
5	$35 + 42 + 58 = \dots$	$748 - 25 - 48 = \dots$	5
6	$657 + 143 = \dots$	$205 - 190 = \dots$	6
7	$21 + 15 + 25 = \dots$	$539 - 119 = \dots$	7
8	$62 + 29 = \dots$	$82 - 19 = \dots$	8
9	$89 + 56 = \dots$	$72 - 58 = \dots$	9
10	$421 + 27 + 129 = \dots$	$568 - 214 = \dots$	10
11	$997 + 579 = \dots$	$626 - 90 = \dots$	11
12	$346 + 24 + 35 = \dots$	$476 - 39 = \dots$	12
13	$576 + 24 + 59$	$540 - 95 = \dots$	
14	$665 + 315 + 35$	$236 - 56 = \dots$	
15	$152 + 28 + 20$	$190 - 110 = \dots$	





niv.1 : Nombre à une décimale : additions, soustractions et compléments à l'unité.



	addition	soustraction	complément	complément	
1	$7,3 + 1 = \dots$	$7,7 - 3 = \dots$	$0,1 + \dots = 1$	$1 - \dots = 0,1$	1
2	$7 + 2,1 = \dots$	$7 - 3,5 = \dots$	$\dots + 0,4 = 1$	$\dots + 0,4 = 2$	2
3	$2,3 + 4,6 = \dots$	$6 - 2,3 = \dots$	$1 = 0,5 + \dots$	$10 = 0,5 + \dots$	3
4	$3,5 + 4 = \dots$	$8,8 - 4,3 = \dots$	$\dots + 0,8 = 1$	$\dots + 0,8 = 1$	4
5	$2,3 + 7,2 = \dots$	$5,4 - 3,1 = \dots$	$0,3 + \dots = 1$	$0,3 - \dots = 0$	5
6	$5 + 2,8 = \dots$	$4 - 2,2 = \dots$	$1 = \dots + 0,2$	$\dots + 1,7 = 2$	6
7	$8 + 1,9 = \dots$	$9,9 - 4,6 = \dots$	$1 - \dots = 0,4$	$1 - \dots = 0,4$	7
8	$2,4 + 3,3 = \dots$	$7,3 - 1,2 = \dots$	$\dots + 0,9 = 1$	$10 - \dots = 6,5$	8
9	$4,1 + 5,4 = \dots$	$6 - 5,7 = \dots$	$1 - \dots = 0,5$	$4,5 + \dots = 10$	9
10	$7,6 + 2,2 = \dots$	$3,8 - 2,5 = \dots$	$1 = \dots + 0,7$	$1 = 0,4 + \dots$	10
11	$6,5 + 2,4 = \dots$	$5,6 - 2 = \dots$	$1 - \dots = 0,8$	$1 = 0,2 + \dots$	11
12	$5,5 + 3 = \dots$	$4 - 2,8 = \dots$	$1 = 0,2 + \dots$	$\dots + 0,7 = 2$	12
13	$3,2 + 4,7 = \dots$	$7,7 - 5,2 = \dots$	$1 - \dots = 0,6$	$\dots + 1,1 = 2$	13
14	$1,7 + 3,2 = \dots$	$8,4 - 2,4 = \dots$	$\dots + 0,5 = 1$	$10 = \dots + 2,7$	14
15	$4,6 + 2 = \dots$	$7 - 4,6 = \dots$	$1 - \dots = 0,1$	$10 = \dots + 5,4$	15
16	$3,5 + 6,1 = \dots$	$2,7 - 1,5 = \dots$	$0,6 + \dots = 1$	$1 = 0,5 + \dots$	16
17	$7,3 + 1,4 = \dots$	$4,5 - 2,3 = \dots$	$\dots + 0,4 = 1$	$2 = \dots + 0,8$	17
18	$5,2 + 2,5 = \dots$	$9,5 - 4 = \dots$	$1 = \dots + 0,8$	$\dots + 8,3 = 10$	18
19	$2,3 + 4,6 = \dots$	$6,8 - 3,5 = \dots$	$1 - \dots = 0,9$	$1 = 0,7 + \dots$	19
20	$8,1 + 1 = \dots$	$2,5 - 1,2 = \dots$	$1 = 0,1 + \dots$	$2 = 0,7 + \dots$	20



niv.2 : Nombre à deux décimales : additions, soustractions et compléments à l'unité.



	addition	soustraction	complément	complément	
1	$3,45 + 2,1 = \dots$	$6,32 - 1,2 = \dots$	$0,32 + \dots = 1$	$7,32 + \dots = 8$	1
2	$2,36 + 5,3 = \dots$	$9,46 - 5,31 = \dots$	$0,64 + \dots = 1$	$4,64 + \dots = 5$	2
3	$7,1 + 2,03 = \dots$	$2,34 - 0,01 = \dots$	$0,25 + \dots = 1$	$6,25 + \dots = 7$	3
4	$6,05 + 3,04 = \dots$	$3,43 - 2,01 = \dots$	$0,10 + \dots = 1$	$0,10 + \dots = 1$	4
5	$3,12 + 1,23 = \dots$	$3,12 - 0,04 = \dots$	$0,75 + \dots = 1$	$9,75 + \dots = 10$	5
6	$1,52 + 2,4 = \dots$	$4,64 - 0,32 = \dots$	$1 - \dots = 0,46$	$10 - \dots = 9,32$	6
7	$3,41 + 2,32 = \dots$	$2,32 - 0,11 = \dots$	$1 - \dots = 0,52$	$1 - \dots = 0,46$	7
8	$8,89 + 0,1 = \dots$	$5,38 - 0,2 = \dots$	$0,35 + \dots = 1$	$3,85 + \dots = 4$	8
9	$3,43 + 2,5 = \dots$	$4,84 - 2,3 = \dots$	$0,28 + \dots = 1$	$5,72 + \dots = 6$	9
10	$0,24 + 3,43 = \dots$	$4,5 - 0,41 = \dots$	$1 = \dots + 0,88$	$7,21 + \dots = 8$	10
11	$5,3 + 4,54 = \dots$	$7,86 - 5,46 = \dots$	$1 = \dots + 0,15$	$7 = 6,01 + \dots$	11
12	$2,1 + 1,68 = \dots$	$8,31 - 5,01 = \dots$	$0,21 + \dots = 1$	$4,75 + \dots = 5$	12
13	$1,36 + 1,01 = \dots$	$8,7 - 5,02 = \dots$	$0,61 + \dots = 1$	$3,84 + \dots = 4$	13
14	$8,5 + 0,08 = \dots$	$6,45 - 6,34 = \dots$	$1 - \dots = 0,77$	$1 = 0,99 + \dots$	14
15	$5,42 + 4,07 = \dots$	$1,88 - 0,54 = \dots$	$1 - \dots = 0,41$	$1 - \dots = 0,25$	15
16	$2,36 + 4,1 = \dots$	$5,32 - 0,21 = \dots$	$1 = 0,19 + \dots$	$1 - \dots = 0,34$	16
17	$5,7 + 3,04 = \dots$	$3,85 - 1,4 = \dots$	$1 = 0,71 + \dots$	$10 - \dots = 9,65$	17
18	$2,6 + 3,38 = \dots$	$4,84 - 2,2 = \dots$	$0,31 + \dots = 1$	$1,28 + \dots = 2$	18
19	$1,84 + 7,1 = \dots$	$2,77 - 1,4 = \dots$	$0,52 + \dots = 1$	$4,66 + \dots = 5$	19
20	$3,32 + 1,13 = \dots$	$7,41 - 1,41 = \dots$	$1 - \dots = 0,02$	$10 = 9,12 + \dots$	20



niv.3 : Additions et soustractions ; encadrement.



	addition	soustraction	encadrement	
1	$26 + 9,15 = \dots$	$61,464 - 30 = \dots$	$\dots < 899,62 < \dots$	1
2	$14 + 7,274 = \dots$	$89,637 - 42 = \dots$	$\dots < 192,83 < \dots$	2
3	$28 + 8,535 = \dots$	$59,222 - 24 = \dots$	$\dots < 338,17 < \dots$	3
4	$16 + 6,683 = \dots$	$58,674 - 6 = \dots$	$\dots < 578,22 < \dots$	4
5	$27 + 4,166 = \dots$	$57,646 - 15 = \dots$	$\dots < 805,04 < \dots$	5
6	$82 + 9,513 = \dots$	$70,493 - 44 = \dots$	$\dots < 116,75 < \dots$	6
7	$14 + 8,544 = \dots$	$85,196 - 2 = \dots$	$\dots < 285,37 < \dots$	7
8	$82 + 3,391 = \dots$	$71,392 - 28 = \dots$	$\dots < 290,23 < \dots$	8
9	$59 + 4,881 = \dots$	$87,45 - 33 = \dots$	$\dots < 788,49 < \dots$	9
10	$3 + 1,312 = \dots$	$82,446 - 45 = \dots$	$\dots < 545,37 < \dots$	10
11	$66 + 4,417 = \dots$	$84,545 - 47 = \dots$	$\dots < 170,21 < \dots$	11
12	$24 + 4,605 = \dots$	$67,994 - 45 = \dots$	$\dots < 710,1 < \dots$	12
13	$58 + 9,804 = \dots$	$91,182 - 41 = \dots$	$\dots < 694,36 < \dots$	13
14	$37 + 3,377 = \dots$	$98,476 - 49 = \dots$	$\dots < 382,22 < \dots$	14
15	$91 + 3,645 = \dots$	$57,011 - 48 = \dots$	$\dots < 623,83 < \dots$	15
16	$22 + 1,787 = \dots$	$73,502 - 26 = \dots$	$\dots < 236,37 < \dots$	16
17	$30 + 2,862 = \dots$	$70,851 - 33 = \dots$	$\dots < 918,76 < \dots$	17
18	$7 + 2,448 = \dots$	$52,042 - 48 = \dots$	$\dots < 364,98 < \dots$	18
19	$61 + 4,644 = \dots$	$56,105 - 36 = \dots$	$\dots < 421,47 < \dots$	19
20	$5 + 5,896 = \dots$	$61,222 - 15 = \dots$	$\dots < 488,34 < \dots$	20

# module V

## décimaux - décomposition



niv.4 : Décomposer pour additionner ou soustraire jusqu'au 0,1.

	addition	soustraction	
1	$7,3 + 1,8 =$	$7,8 - 3,9 =$	1
2	$6,7 + 2,8 =$	$7 - 3,5 =$	2
3	$2,3 + 4,9 =$	$6 - 2,3 =$	3
4	$3,5 + 4,6 =$	$8,8 - 4,9 =$	4
5	$2,3 + 7,9 =$	$5,4 - 3,7 =$	5
6	$5,6 + 4,8 =$	$19 - 6,9 =$	6
7	$6,6 + 3,5 =$	$14,3 - 7,7 =$	7
8	$1,2 + 2,8 =$	$8 - 4,3 =$	8
9	$2,6 + 3,4 =$	$7,3 - 5,9 =$	9
10	$7,3 + 8,8 =$	$9,5 - 8,8 =$	10
11	$3,7 + 5,5 =$	$13,5 - 4,6 =$	11
12	$1,4 + 3,9 =$	$10 - 6,6 =$	12
13	$5,5 + 7,6 =$	$5,8 - 3,9 =$	13
14	$6,6 + 8,7 =$	$15,6 - 8,7 =$	14
15	$2,6 + 4,5 =$	$13,2 - 10,8 =$	15
16	$4,2 + 6,8 =$	$9,6 - 5,6 =$	16
17	$3,5 + 9,5 =$	$4,5 - 1,8 =$	17
18	$7,7 + 3,4 =$	$6,3 - 4,4 =$	18
19	$6,9 + 2,3 =$	$5 - 4,8 =$	19
20	$4,8 + 6,5 =$	$10,5 - 7,7 =$	20



niv.5 : Additions et soustractions de 0,01 à 100.



	addition	soustraction	
1	$30,45 + 62,7 = \dots$	$26 - 16,4 = \dots$	1
2	$43,43 + 22,6 = \dots$	$79,4 - 25,70 = \dots$	2
3	$23,45 + 45,7 = \dots$	$62,34 - 20,8 = \dots$	3
4	$67,54 + 22,81 = \dots$	$63,49 - 12,9 = \dots$	4
5	$43,12 + 41,9 = \dots$	$23,89 - 6,9 = \dots$	5
6	$10,88 + 7,54 = \dots$	$45,1 - 5,01 = \dots$	6
7	$10,75 + 20,25 = \dots$	$10,24 - 9,78 = \dots$	7
8	$42,56 + 13,65 = \dots$	$30,88 - 20,99 = \dots$	8
9	$30,07 + 23,68 = \dots$	$40,34 - 10,99 = \dots$	9
10	$74,58 + 20,42 = \dots$	$70,38 - 30,7 = \dots$	10
11	$20,87 + 35,4 = \dots$	$30,18 - 10,82 = \dots$	11
12	$25,42 + 37 = \dots$	$10,45 - 3,80 = \dots$	12
13	$84 + 38,82 = \dots$	$25,87 - 7,99 = \dots$	13
14	$42,84 + 20,16 = \dots$	$44,68 - 11,99 = \dots$	14
15	$52,42 + 37,85 = \dots$	$65,08 - 10,01 = \dots$	15
16	$31,35 + 38,65 = \dots$	$74,55 - 25,01 = \dots$	16
17	$63,07 + 10,8 = \dots$	$33,27 - 24,43 = \dots$	17
18	$13,25 + 10,99 = \dots$	$13,48 - 10,99 = \dots$	18
19	$24 + 35,42 = \dots$	$65,32 - 50,99 = \dots$	19
20	$34,66 + 24,34 = \dots$	$34,88 - 7,9 = \dots$	20



niv.1 : Additions et soustractions des entiers - 2 termes.

	colonne 1	colonne 2	colonne 3	
1	$5 - 7 = \dots$	$13 - 18 = \dots$	$19 - 98 = \dots$	1
2	$6 - 8 = \dots$	$-54 - 4 = \dots$	$13 + 33 = \dots$	2
3	$9 - 10 = \dots$	$-54 + 4 = \dots$	$66 - 69 = \dots$	3
4	$-8 + 4 = \dots$	$-31 + (-6) = \dots$	$70 + 28 = \dots$	4
5	$(-5) + 8 = \dots$	$-17 - 22 = \dots$	$34 - 45 = \dots$	5
6	$(-7) + 6 = \dots$	$54 - 19 = \dots$	$34 + 17 = \dots$	6
7	$13 + 4 = \dots$	$13 + 67 = \dots$	$(-87) - 11 = \dots$	7
8	$14 - 7 = \dots$	$34 + 54 = \dots$	$78 - 65 = \dots$	8
9	$19 + 1 = \dots$	$12 + 56 = \dots$	$13 + 17 = \dots$	9
10	$20 - 19 = \dots$	$45 - 56 = \dots$	$34 - 75 = \dots$	10
11	$(-7) + 9 = \dots$	$17 - 76 = \dots$	$33 + 56 = \dots$	11
12	$6 - 15 = \dots$	$11 + (-56) = \dots$	$45 - (34) = \dots$	12
13	$14 - 19 = \dots$	$13 + 65 = \dots$	$12 + 76 = \dots$	13
14	$11 - 17 = \dots$	$(-57) + 63 = \dots$	$34 - 45 = \dots$	14
15	$4 + 13 = \dots$	$(-16) + (-76) = \dots$	$17 + 53 = \dots$	15
16	$7 + 9 = \dots$	$11 + 34 = \dots$	$0 - 87 = \dots$	16
17	$17 - 7 = \dots$	$45 - 68 = \dots$	$24 + 5 = \dots$	17
18	$10 - 16 = \dots$	$44 - 98 = \dots$	$27 + 56 = \dots$	18
19	$(-1) - 17 = \dots$	$67 + 23 = \dots$	$15 - 28 = \dots$	19
20	$11 - 15 = \dots$	$62 - 162 = \dots$	$26 + 67 = \dots$	20



niv.2 : Additions et soustractions (2 termes - avec successions de signes).



	colonne 1	colonne 2	
1	$(+45) - (-7) = \dots$	$(-38) + (-20) = \dots$	1
2	$(+16) - (+14) = \dots$	$(-32) + (-47) = \dots$	2
3	$(-30) + (-41) = \dots$	$(+9) - (+19) = \dots$	3
4	$(-9) - (+36) = \dots$	$(+28) + (-29) = \dots$	4
5	$(-33) - (+28) = \dots$	$(+14) + (-29) = \dots$	5
6	$(-42) - (-23) = \dots$	$(+28) + (-31) = \dots$	6
7	$(+44) + (+42) = \dots$	$(-14) + (-3) = \dots$	7
8	$(+37) + (+47) = \dots$	$(-38) + (-35) = \dots$	8
9	$(-4) + (-13) = \dots$	$(-46) + (-32) = \dots$	9
10	$(-48) - (-26) = \dots$	$(+27) + (-12) = \dots$	10
11	$(+45) - (-32) = \dots$	$(-21) + (+0) = \dots$	11
12	$(-10) - (-1) = \dots$	$(-39) - (-8) = \dots$	12
13	$(+10) + (+40) = \dots$	$(-28) + (-23) = \dots$	13
14	$(+49) + (-47) = \dots$	$(-44) + (-30) = \dots$	14
15	$(-2) + (-16) = \dots$	$(+4) - (-49) = \dots$	15
16	$(-4) + (+5) = \dots$	$(-46) + (-3) = \dots$	16
17	$(-39) + (-46) = \dots$	$(+38) - (-46) = \dots$	17
18	$(+6) + (-29) = \dots$	$(+8) + (+32) = \dots$	18
19	$(+21) - (+27) = \dots$	$(-13) + (-12) = \dots$	19
20	$(-6) + (+2) = \dots$	$(-19) + (-25) = \dots$	20



niv.2 : Additions et soustractions (2 termes - avec successions de signes).



	colonne 1	colonne 2	
1	$(+49) - (+48) = \dots$	$(+24) - (+47) = \dots$	1
2	$(-24) - (-39) = \dots$	$(-7) - (+23) = \dots$	2
3	$(-13) + (-37) = \dots$	$(-30) + (+13) = \dots$	3
4	$(+29) - (-46) = \dots$	$(+11) - (-24) = \dots$	4
5	$(-26) + (+49) = \dots$	$(-1) - (+35) = \dots$	5
6	$(-33) + (-35) = \dots$	$(-17) + (-37) = \dots$	6
7	$(-36) - (+34) = \dots$	$(+27) - (+0) = \dots$	7
8	$(-5) + (+0) = \dots$	$(-28) + (-43) = \dots$	8
9	$(+37) + (-45) = \dots$	$(+5) - (+41) = \dots$	9
10	$(+41) + (-38) = \dots$	$(-28) + (+15) = \dots$	10
11	$(+27) + (-6) = \dots$	$(-14) - (-47) = \dots$	11
12	$(+43) - (-44) = \dots$	$(-36) + (+7) = \dots$	12
13	$(-17) - (-8) = \dots$	$(-36) - (+3) = \dots$	13
14	$(-44) + (-47) = \dots$	$(-40) - (+19) = \dots$	14
15	$(+8) - (-5) = \dots$	$(+15) + (+48) = \dots$	15
16	$(-42) + (-41) = \dots$	$(-37) - (-31) = \dots$	16
17	$(+6) + (+4) = \dots$	$(-29) - (+49) = \dots$	17
18	$(-29) + (+49) = \dots$	$(-33) - (+10) = \dots$	18
19	$(+43) + (+45) = \dots$	$(-8) - (-46) = \dots$	19
20	$(+1) + (+15) = \dots$	$(-48) - (+5) = \dots$	20





niv.3 : Additions et soustractions plus de 2 termes.



	colonne 1	colonne 2	
1	$-16 - (-17) - (-14) - 3 = \dots$	$0 - (-48) - (-13) - (-9) - 2 = \dots$	1
2	$43 - (-6) + (-15) - 1 + 25 + (-30) = \dots$	$-33 + (-48) + (-26) = \dots$	2
3	$-10 - (-38) + 36 - 23 - 23 + (-48) = \dots$	$-14 - (-1) - 40 = \dots$	3
4	$-4 + 9 - 12 - (-29) + (-8) = \dots$	$-37 - (-47) + (-46) - 27 = \dots$	4
5	$-49 + (-26) - 20 - 34 - (-32) - 36 = \dots$	$-27 + (-34) + (-31) - (-42) - (-20) - 41 = \dots$	5
6	$35 + (-12) - (-6) = \dots$	$-48 + (-37) - (-20) + 26 + (-44) = \dots$	6
7	$-42 + (-20) - 48 + (-6) - (-29) + (-46) = \dots$	$-15 - (-16) - (-29) = \dots$	7
8	$22 - (-23) - 32 = \dots$	$-34 - (-7) - 45 - (-24) = \dots$	8
9	$-17 - 49 - 22 = \dots$	$44 + (-14) - 7 - (-43) - 44 = \dots$	9
10	$-30 + 36 + (-6) + (-48) = \dots$	$-32 + (-17) + 49 - 29 - (-21) = \dots$	10
11	$-25 - 38 + 0 + (-32) + (-30) = \dots$	$-12 - 26 + 4 = \dots$	11
12	$-25 + 45 - (-14) - (-24) + (-14) = \dots$	$-39 + 41 - 49 + (-27) + (-10) = \dots$	12
13	$5 + 21 + (-26) + 41 - 20 = \dots$	$41 - (-2) + 36 = \dots$	13
14	$-2 + 0 + (-16) = \dots$	$-18 + (-28) - (-8) + (-49) = \dots$	14
15	$-30 + (-5) + 43 + 13 + 41 + 35 = \dots$	$7 - (-5) - (-43) - (-17) = \dots$	15
16	$45 - 12 + 25 = \dots$	$-2 - (-30) - (-46) = \dots$	16
17	$-1 + (-19) - (-8) = \dots$	$31 - 19 - (-3) + (-36) = \dots$	17
18	$-49 + 25 + (-2) - 9 + 21 = \dots$	$18 - (-32) - 12 + (-24) + 8 = \dots$	18
19	$-43 + (-7) - (-37) - (-5) + 29 = \dots$	$-45 + (-22) + 7 + 8 = \dots$	19
20	$-18 - (-33) - 33 = \dots$	$-10 + 4 - (-26) - (-30) = \dots$	20



niv.3 : Additions et soustractions plus de 2 termes.



	colonne 1	colonne 2	
1	$-12 - 28 + (-25) = \dots$	$-31 + (-18) + 42 - (-39) = \dots$	1
2	$-36 - 2 + (-29) + 7 + 4 = \dots$	$-38 - 7 - (-23) = \dots$	2
3	$17 - 30 - (-35) + 0 - (-16) = \dots$	$13 - (-21) + 22 = \dots$	3
4	$22 - (-9) - (-33) + 6 - (-23) = \dots$	$27 + (-49) + (-12) - (-11) = \dots$	4
5	$-40 + (-31) + (-15) + (-32) - 41 = \dots$	$6 - (-41) + (-44) = \dots$	5
6	$-19 + 5 + (-40) - 40 = \dots$	$-44 + (-23) - 4 + 10 + (-35) = \dots$	6
7	$-21 + (-30) + 38 - (-3) + 28 + 36 = \dots$	$49 + (-16) + (-26) + (-32) + 40 = \dots$	7
8	$7 + (-4) + 25 + (-24) - (-8) = \dots$	$-4 + 40 + (-19) - 25 + (-29) + (-11) = \dots$	8
9	$-49 + (-7) + (-17) + (-41) + (-30) = \dots$	$-30 + 12 - 12 - (-41) = \dots$	9
10	$-8 + (-48) + (-42) = \dots$	$-45 - (-46) - 39 + (-35) = \dots$	10
11	$-20 - 2 - (-28) - (-38) = \dots$	$-40 + (-25) - (-7) + (-7) = \dots$	11
12	$30 + (-41) - (-29) = \dots$	$-33 - (-35) - (-27) + (-11) = \dots$	12
13	$-40 + (-6) + (-9) + (-20) - 32 = \dots$	$-28 + (-47) + 32 - (-34) + (-8) + 14 = \dots$	13
14	$-7 + 29 + (-18) + 3 = \dots$	$-4 - 42 + 46 - (-36) + (-34) - 5 = \dots$	14
15	$-37 + (-5) + 20 = \dots$	$-26 - (-17) + (-16) + (-40) = \dots$	15
16	$-47 - (-44) - (-15) = \dots$	$-44 + (-44) - (-34) - (-34) + (-2) + 16 = \dots$	16
17	$38 - 7 + (-27) = \dots$	$2 + 6 + 12 - (-48) + 41 - (-3) = \dots$	17
18	$0 + (-21) - (-28) + 47 = \dots$	$-9 + 24 - (-19) - (-23) - (-23) = \dots$	18
19	$-18 - (-5) + 30 = \dots$	$-42 + (-36) - (-25) + (-24) + (-30) - (-15) = \dots$	19
20	$40 + 43 - (-10) + 29 - (-17) = \dots$	$-46 - (-19) + (-44) - 34 + (-13) = \dots$	20