



## **Global Mental Math Olympiad 2023**

### **Practice Sheet 2-Answer Key**

#### **Challenger Category (Ages 6-8)**

##### **Section 1**

<b>Question Content</b>	Option 1	Option 2	Option 3	Option 4
$5 + 6 = \underline{\quad}$	12	5	17	<b>11</b>
$1 + 4 = \underline{\quad}$	6	13	<b>5</b>	15
$9 + 2 = \underline{\quad}$	8	<b>11</b>	17	12
$3 + 3 = \underline{\quad}$	<b>6</b>	5	15	0
$4 + 3 = \underline{\quad}$	15	<b>7</b>	6	2
$2 + 2 = \underline{\quad}$	5	6	<b>4</b>	1
$7 + 9 = \underline{\quad}$	23	<b>16</b>	9	24
$2 + 4 = \underline{\quad}$	1	7	2	<b>6</b>
$5 + 8 = \underline{\quad}$	23	4	<b>13</b>	19
$1 + 2 = \underline{\quad}$	<b>3</b>	6	13	12
$20 + 5 = \underline{\quad}$	18	17	22	<b>25</b>
$50 + 5 = \underline{\quad}$	<b>55</b>	52	61	63
$10 + 25 = \underline{\quad}$	30	<b>35</b>	27	41
$25 + 5 = \underline{\quad}$	<b>30</b>	37	27	29
$25 + 30 = \underline{\quad}$	<b>55</b>	53	51	65
$40 + 5 = \underline{\quad}$	55	48	<b>45</b>	36
$35 + 5 = \underline{\quad}$	33	42	50	<b>40</b>
$30 + 5 = \underline{\quad}$	28	32	27	<b>35</b>
$15 + 5 = \underline{\quad}$	18	15	<b>20</b>	14
$10 + 5 = \underline{\quad}$	22	<b>15</b>	12	16



## Section 2

Question Content	Option 1	Option 2	Option 3	Option 4
$9 - 4 = \underline{\quad}$	13	10	5	6
$7 - 6 = \underline{\quad}$	7	1	2	13
$9 - 7 = \underline{\quad}$	7	3	9	2
$3 - 2 = \underline{\quad}$	8	3	1	9
$8 - 5 = \underline{\quad}$	13	4	12	3
$45 - 20 = \underline{\quad}$	29	25	27	20
$35 - 10 = \underline{\quad}$	22	25	15	18
$20 - 15 = \underline{\quad}$	5	10	35	6
$35 - 25 = \underline{\quad}$	17	20	12	10
$35 - 15 = \underline{\quad}$	12	20	27	14
$45 - 5 = \underline{\quad}$	42	40	38	39
$20 - 5 = \underline{\quad}$	15	11	19	25
$25 - 5 = \underline{\quad}$	23	12	27	20
$40 - 5 = \underline{\quad}$	35	31	30	45
$15 - 5 = \underline{\quad}$	10	11	16	19

## Section 3

Question Content	Option 1	Option 2	Option 3	Option 4
$6 \times 6 = \underline{\quad}$	39	36	45	31
$2 \times 4 = \underline{\quad}$	2	8	10	3
$4 \times 2 = \underline{\quad}$	10	14	16	8
$4 \times 6 = \underline{\quad}$	28	18	24	29
$8 \times 8 = \underline{\quad}$	59	63	64	66
$9 \times 7 = \underline{\quad}$	72	63	58	70
$5 \times 8 = \underline{\quad}$	35	40	45	36
$6 \times 8 = \underline{\quad}$	54	53	48	51
$8 \times 10 = \underline{\quad}$	74	80	70	75
$3 \times 20 = \underline{\quad}$	68	58	60	67
$5 \times 20 = \underline{\quad}$	93	100	103	107
$3 \times 10 = \underline{\quad}$	38	35	30	27
$2 \times 20 = \underline{\quad}$	40	46	43	34
$8 \times 20 = \underline{\quad}$	162	160	159	152
$9 \times 10 = \underline{\quad}$	98	81	99	90



### Section 4

Question Content	Option 1	Option 2	Option 3	Option 4
$4^4 = \underline{\quad}$	4	$4 \times 4 \times 4 \times 4$	$4 \times 4 \times 4 \times 4$	$4 \times 4 \times 4 \times 4 \times 4 \times 4$
$1^2 = \underline{\quad}$	$1 \times 1$	$1 \times 1 \times 1$	$1 \times 1 \times 1 \times 1$	$1 \times 1 \times 1 \times 1 \times 1$
$1^4 = \underline{\quad}$	$1 \times 1 \times 1$	$1 \times 1 \times 1 \times 1 \times 1 \times 1$	$1 \times 1 \times 1 \times 1$	$1 \times 1$
$4^3 = \underline{\quad}$	$4 \times 4$	4	$4 \times 4 \times 4$	$4 \times 4 \times 4 \times 4 \times 4$
$5^3 = \underline{\quad}$	$5 \times 5$	$5 \times 5 \times 5 \times 5 \times 5$	$5 \times 5 \times 5 \times 5 \times 5 \times 5$	$5 \times 5 \times 5$
$5^2 = \underline{\quad}$	5	$5 \times 5 \times 5$	$5 \times 5 \times 5 \times 5$	$5 \times 5$
$3^4 = \underline{\quad}$	$3 \times 3 \times 3 \times 3 \times 3 \times 3 \times 3$	$3 \times 3 \times 3 \times 3 \times 3 \times 3$	$3 \times 3 \times 3$	$3 \times 3 \times 3 \times 3$
$4^2 = \underline{\quad}$	$4 \times 4$	4	$4 \times 4 \times 4 \times 4$	$4 \times 4 \times 4$
$7^2 = \underline{\quad}$	7	$7 \times 7$	$7 \times 7 \times 7$	$7 \times 7 \times 7 \times 7$
$3^2 = \underline{\quad}$	3	$3 \times 3$	$3 \times 3 \times 3 \times 3$	$3 \times 3 \times 3$

### Section 5

Question Content	Option 1	Option 2	Option 3	Option 4
$9 + \underline{\quad} = 10$	1	19	10	11
$8 + \underline{\quad} = 12$	20	4	3	0
$2 + \underline{\quad} = 8$	0	6	8	13
$2 + \underline{\quad} = 11$	9	14	1	0
$5 + \underline{\quad} = 14$	16	3	9	2
$15 - \underline{\quad} = 13$	28	1	8	2
$13 - \underline{\quad} = 7$	15	13	16	6
$72 - \underline{\quad} = 67$	5	15	0	6
$29 - \underline{\quad} = 27$	2	46	7	6
$41 - \underline{\quad} = 39$	4	2	6	12
$40 + \underline{\quad} = 45$	3	5	7	8
$45 + \underline{\quad} = 50$	14	5	9	3
$33 + \underline{\quad} = 36$	3	12	11	0
$82 + \underline{\quad} = 88$	8	7	9	6
$46 + \underline{\quad} = 47$	1	83	4	11



### Section 6

Question Content	Option 1	Option 2	Option 3	Option 4
$603 \times 98 \times 0 = \underline{\quad}$	0	2	1	603
$205 \times 11 \times 0 = \underline{\quad}$	1	0	2	205
$583 \times \underline{\quad} \times 11 = 0$	1	4	0	583
$149 \times \underline{\quad} \times 32 = 0$	6	149	5	0
$166 \times 77 \times \underline{\quad} = 0$	0	9	5	77
$617 \times 37 \times \underline{\quad} = 0$	1	0	9	37
$2 \times 0 = \underline{\quad}$	1	2	0	20
$9 \times 0 = \underline{\quad}$	7	90	1	0
$6 \times 0 = \underline{\quad}$	4	60	7	0
$5 \times 0 = \underline{\quad}$	8	7	0	50

### Section 7

Question Content	Option 1	Option 2	Option 3	Option 4
$23 \underline{\quad} 4 = 27$	-	X	/	+
$92 \underline{\quad} 4 = 96$	-	X	+	/
$79 \underline{\quad} 7 = 86$	-	X	+	/
$67 \underline{\quad} 3 = 70$	-	X	/	+
$92 \underline{\quad} 3 = 95$	-	X	/	+
$86 \underline{\quad} 6 = 80$	+	X	-	/
$85 \underline{\quad} 2 = 83$	+	X	-	/
$90 \underline{\quad} 5 = 85$	+	-	/	X
$44 \underline{\quad} 2 = 42$	-	+	/	X
$78 \underline{\quad} 2 = 76$	-	+	/	X

### Section 8

Question Content	Option 1	Option 2	Option 3	Option 4
Double of 3 = $\underline{\quad}$	14	5	10	6
Double of 2 = $\underline{\quad}$	10	2	12	4
Double of 7 = $\underline{\quad}$	14	19	4	5
Double of 6 = $\underline{\quad}$	12	16	13	17
Double of 8 = $\underline{\quad}$	9	6	16	20
Double of 30 = $\underline{\quad}$	56	69	52	60
Double of 25 = $\underline{\quad}$	42	50	41	44
Double of 40 = $\underline{\quad}$	71	86	80	82
Double of 35 = $\underline{\quad}$	61	70	66	76
Double of 20 = $\underline{\quad}$	34	50	40	45
Double of 89 = $\underline{\quad}$	183	178	186	181



Double of 21 = _	42	48	39	44
Double of 88 = _	184	176	175	177
Double of 97 = _	186	189	195	194
Double of 90 = _	172	184	174	180

### Section 9

Question Content	Option 1	Option 2	Option 3	Option 4
Triple of 4 = _	11	12	13	5
Triple of 6 = _	17	18	23	20
Triple of 9 = _	27	28	36	22
Triple of 8 = _	26	24	31	15
Triple of 3 = _	1	7	5	9

### Section 10

Question Content	Option 1	Option 2	Option 3	Option 4
Half of 40 = _	20	30	14	13
Half of 90 = _	45	51	55	37
Half of 70 = _	39	45	33	35
Half of 80 = _	41	40	42	33
Half of 60 = _	25	38	30	29

### Section 11

Question Content	Option 1	Option 2	Option 3	Option 4
$17 + 5 + 2 = \_$	14	34	15	24
$59 + 6 + 4 = \_$	59	69	78	75
$82 + 6 + 3 = \_$	87	101	94	91
$98 + 1 + 5 = \_$	98	110	104	109
$88 + 8 + 5 = \_$	100	103	101	104
$42 + 6 - 5 = \_$	50	34	49	43
$84 + 8 - 4 = \_$	86	89	88	81
$21 + 6 - 3 = \_$	24	28	22	21
$18 + 6 - 4 = \_$	14	15	20	13
$82 + 7 - 4 = \_$	86	85	84	88
$12 - 6 + 2 = \_$	10	8	4	17
$94 - 8 + 6 = \_$	95	87	92	93
$69 - 8 + 2 = \_$	60	66	54	63
$68 - 8 + 2 = \_$	56	64	62	69



$51 - 6 + 3 = \underline{\quad}$	44	48	55	51
$34 + 6 = \underline{\quad}$	42	45	34	40
$22 + 6 = \underline{\quad}$	30	29	26	28
$22 + 8 = \underline{\quad}$	35	23	30	28
$69 + 9 = \underline{\quad}$	81	86	76	78
$75 + 7 = \underline{\quad}$	82	88	78	72

### Section 12

Question Content	Option 1	Option 2	Option 3	Option 4
$4 \times 4 = \underline{\quad}$	$4^5$	$4^8$	$4^9$	$4^2$
$7 \times 7 \times 7 = \underline{\quad}$	$7^7$	$7^2$	$7^3$	$7^4$
$1 \times 1 \times 1 = \underline{\quad}$	$1^8$	$1^6$	$1^3$	$1^5$
$1 \times 1 = \underline{\quad}$	$1^2$	$1^9$	$1^5$	$1^3$
$7 \times 7 = \underline{\quad}$	$7^2$	$7^8$	$7^4$	$7^7$
$29 \times 29 \times 29 \times 29 = \underline{\quad}$	$29^8$	$29^5$	$29^2$	$29^4$
$38 \times 38 \times 38 = \underline{\quad}$	$38^3$	$38^8$	$38^7$	$38^5$
$46 \times 46 \times 46 = \underline{\quad}$	$46^7$	$46^8$	$46^9$	$46^3$
$28 \times 28 \times 28 = \underline{\quad}$	$28^9$	$28^3$	$28^5$	$28^7$
$91 \times 91 \times 91 \times 91 = \underline{\quad}$	$91^1$	$91^4$	$91^7$	$91^3$