



Global Mental Math Olympiad 2024

Practice Sheet 3

Grandmaster Category (Ages 12 & Above)

Section 1

Question Content	Option 1	Option 2	Option 3	Option 4
$93 + 4 - 1 = _$	96	98	102	99
$91 + 3 - 3 = _$	83	92	88	91
$99 + 5 - 3 = _$	92	98	101	93
$97 + 4 - 3 = _$	98	93	102	89
$73 + 9 - 8 = _$	74	75	79	70
$18 + 8 - 1 = _$	25	34	30	26
$55 + 3 - 1 = _$	49	63	56	57
$70 + 6 - 5 = _$	65	76	71	77
$34 + 9 - 4 = _$	36	39	35	45
$97 + 6 - 2 = _$	93	102	101	94
$72 - 6 - 4 = _$	66	71	62	64
$23 - 3 - 3 = _$	15	17	19	11
$67 - 2 - 1 = _$	69	57	66	64
$98 - 9 - 9 = _$	73	71	81	80
$44 - 7 - 4 = _$	38	41	28	33
$92 - 3 - 2 = _$	95	87	78	94
$14 - 2 - 1 = _$	13	11	19	20
$48 - 4 - 2 = _$	40	42	44	34
$56 - 6 - 3 = _$	43	40	47	42
$92 - 7 - 4 = _$	80	88	82	81

Section 2

Question Content	Option 1	Option 2	Option 3	Option 4
$65 + 39 = _$	102	104	113	98
$45 + 11 = _$	58	59	61	56
$82 + 58 = _$	140	149	132	138
$51 + 78 = _$	128	133	129	134
$65 + 74 = _$	136	139	143	134



$66 + 98 = \underline{\quad}$	166	164	159	163
$76 + 69 = \underline{\quad}$	149	145	154	141
$40 + 20 = \underline{\quad}$	67	60	59	64
$17 + 65 = \underline{\quad}$	82	78	77	80
$90 + 87 = \underline{\quad}$	177	168	175	174

Section 3

Question Content	Option 1	Option 2	Option 3	Option 4
$60 + 40 - 35 = \underline{\quad}$	57	61	64	65
$69 + 51 - 26 = \underline{\quad}$	103	94	92	101
$70 + 43 - 42 = \underline{\quad}$	63	77	71	73
$83 + 79 - 60 = \underline{\quad}$	102	108	96	98
$95 + 38 - 16 = \underline{\quad}$	115	116	124	117
$48 - 41 - 1 = \underline{\quad}$	6	2	15	12
$41 - 13 - 11 = \underline{\quad}$	25	20	17	8
$95 - 92 - 2 = \underline{\quad}$	3	8	1	6
$94 - 69 - 19 = \underline{\quad}$	2	4	10	6
$99 - 68 - 14 = \underline{\quad}$	17	14	26	20

Section 4

Question Content	Option 1	Option 2	Option 3	Option 4
Double of 50 + Half of 28 = $\underline{\quad}$	108	112	114	107
Double of 90 + Half of 36 = $\underline{\quad}$	200	194	190	198
Double of 39 + Half of 48 = $\underline{\quad}$	106	102	100	98
Double of 98 + Half of 60 = $\underline{\quad}$	227	226	218	234
Double of 56 + Half of 32 = $\underline{\quad}$	133	128	123	129
Double of 29 = $\underline{\quad}$	51	54	58	56
Double of 36 = $\underline{\quad}$	74	72	80	68
Double of 20 = $\underline{\quad}$	35	36	40	38
Double of 17 = $\underline{\quad}$	36	42	34	38
Double of 31 = $\underline{\quad}$	62	54	57	64
Half of 332 = $\underline{\quad}$	167	157	166	168
Half of 376 = $\underline{\quad}$	194	188	196	185
Half of 966 = $\underline{\quad}$	478	481	485	483
Half of 506 = $\underline{\quad}$	262	245	253	255
Half of 958 = $\underline{\quad}$	472	484	487	479



Double of 849 = _	1693	1703	1698	1702
Double of 733 = _	1460	1468	1466	1471
Double of 350 = _	696	703	700	698
Double of 484 = _	966	968	959	960
Double of 142 = _	286	284	280	282

Section 5

Question Content	Option 1	Option 2	Option 3	Option 4
Double of 41 + Half of 146 = _	147	152	155	146
Double of 62 + Half of 112 = _	174	175	180	183
Double of 61 + Half of 162 = _	201	202	207	203
Double of 91 + Half of 172 = _	268	270	260	277
Double of 97 + Half of 110 = _	255	246	245	249
Double of 76 + Double of 46 = _	252	243	236	244
Double of 94 + Double of 37 = _	266	256	271	262
Double of 64 + Double of 76 = _	284	286	274	280
Double of 43 + Double of 71 = _	229	222	228	226
Double of 31 + Double of 59 = _	178	175	180	172

Section 6

Question Content	Option 1	Option 2	Option 3	Option 4
Triple of 49 = _	149	147	138	150
Triple of 52 = _	158	164	147	156
Triple of 70 = _	208	209	213	210
Triple of 88 = _	259	268	260	264
Triple of 76 = _	237	224	228	221
Triple of 573 = _	1724	1721	1728	1719
Triple of 216 = _	648	649	656	654
Triple of 423 = _	1260	1278	1269	1262
Triple of 930 = _	2781	2795	2790	2792
Triple of 166 = _	495	498	496	494



Section 7

Question Content	Option 1	Option 2	Option 3	Option 4
66, 27, 69 Mean = _	51	54	60	52
64, 94, 52 Mean = _	65	68	70	69
30, 91, 26 Mean = _	43	49	47	41
36, 31, 74 Mean = _	38	41	50	47
67, 53, 60 Mean = _	61	68	60	67
59, 10, 54, 38, 24 Mean = _	33	37	35	30
94, 83, 33, 65, 55 Mean = _	66	74	58	73
27, 80, 57, 93, 58 Mean = _	70	67	63	66
65, 31, 46, 52, 41 Mean = _	52	49	47	48
66, 16, 42, 35, 86 Mean = _	54	41	51	49
79, 21, 41, 90, 19 Mean = _	55	50	59	52
38, 50, 14, 63, 30 Mean = _	36	39	37	44
73, 23, 90, 80, 99 Mean = _	75	73	72	70
61, 88, 68, 78, 90 Mean = _	85	86	75	77
69, 86, 88, 92, 50 Mean = _	80	77	73	70

Section 8

Question Content	Option 1	Option 2	Option 3	Option 4
Half of 1658 = _	825	827	824	829
Half of 4160 = _	2086	2080	2085	2077
Half of 1732 = _	874	871	859	866
Half of 5754 = _	2879	2877	2882	2868
Half of 1874 = _	941	928	935	937

Section 9

Question Content	Option 1	Option 2	Option 3	Option 4
Loss = 439, Selling Price = 178 Cost price = _	615	619	610	617
Loss = 530, Selling Price = 285 Cost price = _	809	815	813	811
Loss = 391, Selling Price = 459 Cost price = _	850	856	843	851
Profit = 173, Selling Price = 456 Cost price = _	292	281	286	283



Loss = 191, Selling Price = 297 Cost price = _	486	490	489	488
Cost price = 157, Selling Price = 89 Loss = _	70	68	77	72
Cost price = 481, Selling Price = 120 Loss = _	356	368	361	359
Cost price = 372, Selling Price = 651 Profit = _	270	276	277	279
Cost price = 325, Selling Price = 185 Loss = _	144	140	137	135
Cost price = 405, Selling Price = 677 Profit = _	272	271	270	273
Cost price = 787, Selling Price = 236 Loss = _	552	546	551	542
Cost price = 284, Selling Price = 99 Loss = _	178	186	184	185
Cost price = 419, Selling Price = 113 Loss = _	299	298	297	306
Cost price = 516, Selling Price = 216 Loss = _	300	304	298	297
Cost price = 625, Selling Price = 875 Profit = _	257	248	254	250

Section 10

Question Content	Option 1	Option 2	Option 3	Option 4
$6^2 = _$	38	36	32	37
$1^2 = _$	1	7	2	3
$7^2 = _$	44	49	58	48
$9^2 = _$	72	83	77	81
$46^2 = _$	2116	2113	2115	2121
$27^2 = _$	731	725	729	734
$58^2 = _$	3364	3367	3359	3372
$41^2 = _$	1683	1688	1680	1681
$92^2 = _$	8464	8473	8472	8458
$84^2 = _$	7056	7059	7048	7058
$43^2 = _$	1849	1855	1841	1843
$34^2 = _$	1156	1157	1154	1163
$18^2 = _$	316	333	324	321
$60^2 = _$	3606	3596	3592	3600



Section 11

Question Content	Option 1	Option 2	Option 3	Option 4
$669 + 67 - 6 = \underline{\quad}$	722	730	726	735
$670 + 17 - 5 = \underline{\quad}$	682	687	680	685
$825 + 27 - 2 = \underline{\quad}$	850	841	855	849
$692 + 39 - 3 = \underline{\quad}$	737	731	728	735
$612 + 62 - 1 = \underline{\quad}$	676	679	666	673
$923 - 18 + 1 = \underline{\quad}$	897	914	906	909
$490 - 84 + 2 = \underline{\quad}$	406	405	399	408
$652 - 11 + 6 = \underline{\quad}$	645	647	649	646
$504 - 57 + 7 = \underline{\quad}$	448	450	454	452
$454 - 94 + 7 = \underline{\quad}$	365	367	373	364

Section 12

Question Content	Option 1	Option 2	Option 3	Option 4
$99 \times \underline{\quad} = 792$	8	15	9	7
$29 \times \underline{\quad} = 116$	11	4	2	8
$91 \times \underline{\quad} = 728$	4	2	9	8
$39 \times \underline{\quad} = 312$	4	5	8	2
$21 \times \underline{\quad} = 63$	1	5	3	9
$41 \times \underline{\quad} = 82$	10	7	2	4
$10 \times \underline{\quad} = 80$	8	17	15	12
$74 \times \underline{\quad} = 444$	11	6	4	1
$92 \times \underline{\quad} = 460$	4	7	5	2
$60 \times \underline{\quad} = 540$	8	18	12	9
$\underline{\quad} \times 100 = 3800$	36	43	39	38
$\underline{\quad} \times 100 = 7900$	73	74	87	79
$\underline{\quad} \times 100 = 2400$	28	24	31	15
$\underline{\quad} \times 100 = 1700$	18	15	11	17
$\underline{\quad} \times 100 = 2600$	21	26	28	17



Section 13

Question Content	Option 1	Option 2	Option 3	Option 4
$6 \times 8 \times 8 = _$	388	382	378	384
$9 \times 3 \times 5 = _$	132	142	134	135
$5 \times 7 \times 4 = _$	139	144	140	131
$8 \times 7 \times 5 = _$	280	282	289	276
$7 \times 6 \times 1 = _$	49	42	41	40
$5 \times 9 \times 5 = _$	228	221	231	225
$6 \times 9 \times 3 = _$	162	160	157	166
$6 \times 7 \times 5 = _$	201	204	210	205
$1 \times 9 \times 3 = _$	28	27	34	24
$8 \times 1 \times 5 = _$	33	31	40	32

Section 14

Question Content	Option 1	Option 2	Option 3	Option 4
$90 \times 50 = _$	4505	4491	4502	4500
$68 \times 88 = _$	5992	5984	5981	5990
$33 \times 81 = _$	2673	2676	2677	2679
$97 \times 89 = _$	8642	8637	8630	8633
$77 \times 44 = _$	3395	3388	3386	3379
$14 \times 86 = _$	1203	1204	1202	1206
$88 \times 97 = _$	8543	8542	8536	8537
$31 \times 21 = _$	651	649	657	643
$98 \times 21 = _$	2061	2065	2050	2058
$12 \times 54 = _$	642	652	643	648
$271 \times 206 = _$	55833	55827	55826	55818
$742 \times 199 = _$	147658	147664	147666	147660
$469 \times 162 = _$	75976	75985	75977	75978
$434 \times 508 = _$	220472	220475	220463	220474
$804 \times 989 = _$	795165	795157	795158	795156
$\sqrt{289} = _$	18	14	17	9
$\sqrt{225} = _$	13	16	15	8
$\sqrt{576} = _$	17	24	21	19
$\sqrt{729} = _$	25	30	28	27
$\sqrt{961} = _$	29	31	27	40
$\sqrt{324} = _$	21	18	26	10



$\sqrt{196} = _$	15	5	14	21
$\sqrt{484} = _$	30	22	17	20
$\sqrt{121} = _$	11	15	2	4
$\sqrt{2916} = _$	54	53	46	61
$\sqrt{2500} = _$	42	47	50	41
$\sqrt{1681} = _$	50	36	41	39
$\sqrt{8281} = _$	87	91	99	93
$\sqrt{3136} = _$	48	56	55	54
$\sqrt{8464} = _$	92	94	95	91
$\sqrt{3025} = _$	56	51	55	50
$\sqrt{4624} = _$	68	70	61	64
$\sqrt{4761} = _$	75	69	63	77
$\sqrt{6084} = _$	78	80	84	76

Section 15

Question Content	Option 1	Option 2	Option 3	Option 4
Cube Root of 46656 = $_$	36	43	33	40
Cube Root of 85184 = $_$	45	39	51	44
Cube Root of 24389 = $_$	20	22	29	35
Cube Root of 13824 = $_$	23	28	24	19
Cube Root of 12167 = $_$	24	16	19	23
Cube Root of 91125 = $_$	46	38	47	45
Cube Root of 74088 = $_$	44	42	49	40
Cube Root of 79507 = $_$	43	36	49	34
Cube Root of 21952 = $_$	29	28	32	34

Section 16

Question Content	Option 1	Option 2	Option 3	Option 4
$784 + 73 = _$	857	852	855	859
$910 + 27 = _$	937	941	935	929
$439 + 28 = _$	469	463	467	466
$943 + 95 = _$	1030	1034	1032	1038
$678 + 21 = _$	699	708	703	697
$595 - 77 = _$	511	518	520	521
$726 - 42 = _$	693	686	684	675
$382 - 35 = _$	347	349	353	356



$558 - 72 = \underline{\quad}$	486	482	479	494
$276 - 22 = \underline{\quad}$	260	248	254	246

Section 17

Question Content	Option 1	Option 2	Option 3	Option 4
$870 - 66 + 16 = \underline{\quad}$	822	828	820	821
$375 - 95 + 35 = \underline{\quad}$	317	315	309	313
$132 - 67 + 51 = \underline{\quad}$	116	124	111	114
$370 - 77 + 59 = \underline{\quad}$	352	358	349	360
$439 - 76 + 45 = \underline{\quad}$	401	407	408	400
$249 + 71 - 36 = \underline{\quad}$	279	277	283	284
$554 + 99 - 13 = \underline{\quad}$	640	635	649	638
$643 + 27 - 26 = \underline{\quad}$	644	636	646	653
$460 + 57 - 40 = \underline{\quad}$	470	474	477	479
$841 + 90 - 22 = \underline{\quad}$	909	916	917	913

Section 18

Question Content	Option 1	Option 2	Option 3	Option 4
$(35 + 92) \times (45 + 34) = \underline{\quad}$	10033	10034	10027	10031
$(78 + 95) \times (39 + 27) = \underline{\quad}$	11414	11425	11418	11411
$(40 + 92) \times (52 + 22) = \underline{\quad}$	9766	9768	9767	9774
$(75 + 93) \times (89 + 24) = \underline{\quad}$	18982	18992	18984	18985
$(38 + 97) \times (46 + 39) = \underline{\quad}$	11469	11473	11475	11483

Section 19

Question Content	Option 1	Option 2	Option 3	Option 4
Multiple of 73 = $\underline{\quad}$	298, 370, 663	292, 365, 657	300, 373, 374	295, 366, 368
Multiple of 84 = $\underline{\quad}$	170, 254, 422	172, 256, 424	176, 260, 427	168, 252, 420
Multiple of 66 = $\underline{\quad}$	264, 528, 594	535, 602, 603	531, 595, 596	532, 598, 599
Multiple of 39 = $\underline{\quad}$	117, 156, 234	118, 158, 237	125, 165, 242	121, 160, 240
Multiple of 54 = $\underline{\quad}$	110, 272, 325	108, 270, 324	113, 276, 329	117, 277, 331



Section 20

Question Content	Option 1	Option 2	Option 3	Option 4
Find the LCM of 23 and 96 ?	2201	2208	2212	2217
Find the LCM of 89 and 29 ?	2577	2583	2580	2581
Find the LCM of 39 and 89 ?	3464	3467	3471	3476
Find the LCM of 47 and 58 ?	2721	2728	2726	2734
Find the LCM of 61 and 35 ?	2135	2129	2139	2144
Find the LCM of 73 and 13 ?	951	949	941	957
Find the LCM of 83 and 11 ?	919	904	921	913
Find the LCM of 79 and 68 ?	5364	5372	5374	5363
Find the LCM of 40 and 44 ?	433	444	438	440
Find the LCM of 99 and 72 ?	790	792	797	784
Find the LCM of 15 and 19 ?	276	285	281	291
Find the LCM of 18 and 70 ?	634	630	633	622
Find the LCM of 94 and 80 ?	3760	3766	3762	3759
Find the LCM of 12 and 14 ?	86	90	82	84
Find the LCM of 69 and 88 ?	6072	6066	6063	6081

Section 21

Question Content	Option 1	Option 2	Option 3	Option 4
Find the HCF of 22, 82 = _	6	2	8	11
Find the HCF of 86, 12 = _	2	7	10	1
Find the HCF of 44, 32 = _	3	10	4	7
Find the HCF of 64, 14 = _	6	2	10	3
Find the HCF of 77, 30 = _	1	7	9	5
Find the HCF of 86, 91 = _	1	7	8	6
Find the HCF of 30, 85 = _	5	14	11	7
Find the HCF of 39, 38 = _	5	1	4	7
Find the HCF of 38, 36 = _	2	4	9	11
Find the HCF of 78, 33 = _	11	6	3	12



Section 22

Question Content	Option 1	Option 2	Option 3	Option 4
$725 / 5$ Quotient = _	143	145	138	140
$500 / 5$ Quotient = _	99	100	91	106
$608 / 4$ Quotient = _	144	152	154	155
$255 / 5$ Quotient = _	53	43	51	42
$900 / 5$ Quotient = _	189	182	185	180
$882 / 98$ Quotient = _	11	10	9	3
$884 / 34$ Quotient = _	26	33	30	24
$492 / 82$ Quotient = _	1	6	12	9
$98 / 98$ Quotient = _	1	6	2	10
$946 / 86$ Quotient = _	18	13	14	11

Section 23

Question Content	Option 1	Option 2	Option 3	Option 4
Remainder of $37 / 9$ = _	2	1	7	3
Remainder of $14 / 1$ = _	3	8	0	2
Remainder of $63 / 5$ = _	7	3	8	12
Remainder of $34 / 8$ = _	3	6	2	11
Remainder of $45 / 3$ = _	2	0	1	9
Remainder of $180 / 23$ = _	17	21	15	19
Remainder of $882 / 10$ = _	1	7	3	2
Remainder of $581 / 73$ = _	71	64	70	77
Remainder of $877 / 26$ = _	26	19	15	28
Remainder of $386 / 41$ = _	17	13	21	15

Section 24

Question Content	Option 1	Option 2	Option 3	Option 4
25% of 32 = _	12	13	8	10
50% of 34 = _	24	17	16	19
20% of 15 = _	5	1	6	3
10% of 90 = _	8	13	12	9
25% of 52 = _	17	21	5	13
8% of 75 = _	14	6	8	1
25% of 68 = _	10	22	17	13



5% of 80 = _	3	4	7	0
50% of 378 = _	189	190	194	191
50% of 486 = _	241	243	248	240
25% of 604 = _	152	154	151	150
25% of 332 = _	90	83	75	85

Section 25

Question Content	Option 1	Option 2	Option 3	Option 4
Prime Factors of 87 = _	7, 33	3, 29	12, 36	4, 31
Prime Factors of 88 = _	9, 11, 20	6, 8, 17	2, 2, 2, 11	3, 4, 14
Prime Factors of 65 = _	11, 19	8, 14	13, 20	5, 13
Prime Factors of 15 = _	3, 5	9, 11	5, 8	10, 12
Prime Factors of 32 = _	2, 2, 2, 2, 2	6, 7	3, 4, 5	9, 10
Prime Factors of 428 = _	7, 111	4, 5, 109	9, 10, 114	2, 2, 107
Prime Factors of 280 = _	7, 8, 9, 11	3, 4, 6, 10	9, 11, 14	2, 2, 2, 5, 7
Prime Factors of 529 = _	27, 28	24, 25	31, 32	23, 23
Prime Factors of 869 = _	14, 81	15, 84	11, 79	19, 86
Prime Factors of 810 = _	10, 11, 12, 13	2, 3, 3, 3, 3, 5	4, 5, 6, 8	7, 8, 9, 10

Section 26

Question Content	Option 1	Option 2	Option 3	Option 4
25 : 215 = _	7:52	9:47	5:43	12:49
21 : 679 = _	7:99	4:105	6:101	3:97
40 : 248 = _	5:31	12:40	12:34	9:33
66 : 426 = _	11:71	16:72	13:74	19:73
45 : 279 = _	14:34	11:38	6:36	5:31
99 : 63 = _	13:13	16:12	12:12	11:7
27 : 18 = _	6:6	5:4	3:2	8:8
27 : 45 = _	7:9	8:13	3:5	10:9
18 : 12 = _	4:7	11:3	3:2	12:5
10 : 35 = _	2:7	7:10	6:9	4:9



Section 27

Question Content	Option 1	Option 2	Option 3	Option 4
$181 \times 7 = \underline{\quad}$	1269	1262	1267	1274
$882 \times 8 = \underline{\quad}$	7063	7065	7056	7058
$540 \times 8 = \underline{\quad}$	4318	4320	4319	4325
$463 \times 3 = \underline{\quad}$	1380	1396	1389	1391
$591 \times 5 = \underline{\quad}$	2955	2950	2951	2948

Section 28

Question Content	Option 1	Option 2	Option 3	Option 4
$1447 - 709 = \underline{\quad}$	738	744	737	742
$3372 - 769 = \underline{\quad}$	2612	2608	2595	2603
$2876 - 494 = \underline{\quad}$	2378	2381	2382	2376
$4410 - 209 = \underline{\quad}$	4200	4196	4201	4197
$6961 - 192 = \underline{\quad}$	6775	6769	6762	6776

Section 29

Question Content	Option 1	Option 2	Option 3	Option 4
$720 + 802 = \underline{\quad}$	1531	1522	1515	1520
$672 + 297 = \underline{\quad}$	978	969	976	967
$176 + 323 = \underline{\quad}$	496	497	499	495
$360 + 626 = \underline{\quad}$	977	994	986	990
$811 + 778 = \underline{\quad}$	1581	1585	1590	1589
$626 + 171 = \underline{\quad}$	788	789	801	797
$340 + 757 = \underline{\quad}$	1101	1097	1095	1102
$578 + 114 = \underline{\quad}$	692	697	689	699
$378 + 505 = \underline{\quad}$	877	883	887	885
$529 + 192 = \underline{\quad}$	712	730	720	721
$737 + 687 + 498 = \underline{\quad}$	1931	1921	1922	1923
$565 + 183 + 227 = \underline{\quad}$	983	975	984	982
$327 + 600 + 657 = \underline{\quad}$	1592	1588	1584	1579
$755 + 691 + 370 = \underline{\quad}$	1811	1812	1816	1807
$290 + 449 + 377 = \underline{\quad}$	1122	1116	1118	1112



Section 30

Question Content	Option 1	Option 2	Option 3	Option 4
$1.22 \times 10 = _$	21.2	8.2	12.2	10.2
$5.25 \times 10 = _$	53.5	49.5	51.5	52.5
$7.93 \times 10 = _$	80.3	74.3	76.3	79.3
$8.98 \times 10 = _$	95.8	89.8	90.8	96.8
$5.8 \times 10 = _$	58	55	56	49
$734.28 \times 100 = _$	73425	73428	73423	73437
$629.31 \times 100 = _$	62931	62938	62934	62925
$654.96 \times 100 = _$	65496	65492	65504	65498
$442.45 \times 100 = _$	44245	44243	44241	44246
$643.32 \times 100 = _$	64338	64334	64332	64337
$2.59 \times 100 = _$	266	259	260	257
$9.35 \times 100 = _$	931	937	939	935
$8.11 \times 100 = _$	815	802	811	813
$3.22 \times 100 = _$	315	323	322	324
$9.27 \times 100 = _$	921	927	933	930