



Global Mental Math Olympiad 2023

Practice Sheet 2-Answer Key

Zen Master Category

Section 1

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$10 + 5 - 4 = _$	14	4	11	15
2	$33 + 9 - 8 = _$	28	30	24	34
3	$43 + 8 - 7 = _$	44	54	53	52
4	$48 + 6 - 1 = _$	53	63	55	48
5	$63 + 9 - 1 = _$	63	71	77	68
6	$27 - 9 - 9 = _$	15	9	3	13
7	$20 - 5 - 5 = _$	16	9	10	0
8	$58 - 6 - 4 = _$	44	42	48	47
9	$68 - 3 - 1 = _$	74	64	62	68
10	$94 - 4 - 3 = _$	84	80	91	87

Section 2

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$43 + 56 = _$	90	99	100	101
2	$27 + 83 = _$	119	110	109	116
3	$45 + 75 = _$	125	130	120	115
4	$50 + 80 = _$	130	127	136	140
5	$87 + 65 = _$	152	156	157	151



Section 3

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$56 + 40 - 36 = _$	66	53	62	60
2	$59 + 45 - 41 = _$	70	63	71	66
3	$97 + 69 - 62 = _$	99	114	100	104
4	$90 + 69 - 48 = _$	111	102	105	109
5	$90 + 82 - 23 = _$	147	152	149	141
6	$38 - 34 - 2 = _$	6	74	2	4
7	$88 - 81 - 4 = _$	11	171	4	3
8	$67 - 48 - 15 = _$	12	4	10	3
9	$72 - 45 - 23 = _$	4	27	6	14
10	$92 - 37 - 17 = _$	32	35	33	38

Section 4

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Double of 43 + Half of 24 = $_$	94	100	98	88
2	Double of 47 + Half of 80 = $_$	139	127	134	138
3	Double of 52 + Half of 92 = $_$	150	156	141	147
4	Double of 71 + Half of 80 = $_$	182	178	186	187
5	Double of 98 + Half of 86 = $_$	236	240	229	239
6	Double of 24 = $_$	45	48	58	44
7	Double of 42 = $_$	84	90	77	87
8	Double of 46 = $_$	100	99	92	86
9	Double of 55 = $_$	110	104	116	101
10	Double of 62 = $_$	133	124	132	118



Section 5

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Half of 148 = _	64	83	68	74
2	Half of 264 = _	131	127	132	126
3	Half of 676 = _	342	348	331	338
4	Half of 684 = _	350	342	352	347
5	Half of 932 = _	466	472	469	465
6	Double of 249 = _	508	490	492	498
7	Double of 531 = _	1063	1054	1059	1062
8	Double of 643 = _	1277	1284	1286	1287
9	Double of 672 = _	1337	1350	1344	1348
10	Double of 902 = _	1804	1808	1812	1801

Section 6

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Double of 11 + Half of 196 = _	122	120	129	124
2	Double of 20 + Half of 166 = _	115	123	114	118
3	Double of 46 + Half of 188 = _	189	177	190	186
4	Double of 47 + Half of 184 = _	196	189	187	186
5	Double of 91 + Half of 122 = _	243	250	242	249
6	Double of 25 + Double of 13 = _	71	68	76	80
7	Double of 29 + Double of 56 = _	172	171	170	174
8	Double of 21 + Double of 92 = _	226	225	223	229
9	Double of 67 + Double of 91 = _	313	316	322	324
10	Double of 95 + Double of 91 = _	372	381	376	378

Section 7

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Triple of 21 = _	56	71	72	63
2	Triple of 45 = _	135	130	131	143
3	Triple of 46 = _	141	145	138	134
4	Triple of 62 = _	181	188	183	186
5	Triple of 65 = _	186	195	198	201



Section 8

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Triple of 487 = _	1460	1468	1458	1461
2	Triple of 491 = _	1477	1478	1473	1476
3	Triple of 569 = _	1712	1698	1708	1707
4	Triple of 822 = _	2474	2469	2466	2461
5	Triple of 860 = _	2570	2586	2577	2580

Section 9

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	64, 14, 15 Mean = _	31	35	25	33
2	20, 42, 46 Mean = _	32	36	39	33
3	45, 18, 63 Mean = _	38	42	50	44
4	31, 98, 12 Mean = _	49	47	44	51
5	41, 89, 56 Mean = _	71	63	62	60
6	87, 94, 29 Mean = _	73	70	77	67
7	37, 95, 81 Mean = _	66	69	71	79
8	23, 38, 78, 24, 22 Mean = _	37	41	31	34
9	22, 35, 54, 71, 48 Mean = _	38	46	50	36
10	83, 36, 82, 31, 13 Mean = _	43	49	52	58
11	76, 50, 40, 21, 78 Mean = _	50	53	60	57
12	90, 32, 47, 30, 96 Mean = _	53	51	58	59
13	14, 86, 34, 63, 98 Mean = _	59	52	66	63
14	77, 18, 44, 99, 87 Mean = _	59	70	65	56
15	Half of 7100 = _	3541	3557	3556	3550
16	Half of 8034 = _	4020	4017	4010	4027
17	Half of 9822 = _	4918	4904	4916	4911
18	Half of 5662 = _	2832	2831	2830	2826
19	Half of 8934 = _	4458	4467	4475	4469



Section 10

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Cost price = 237, Selling Price = 323 Profit = __	86	93	78	91
2	Cost price = 403, Selling Price = 605 Profit = __	192	202	201	208
3	Cost price = 539, Selling Price = 269 Loss = __	267	270	271	277
4	Cost price = 598, Selling Price = 951 Profit = __	353	350	348	343
5	Cost price = 740, Selling Price = 1170 Profit = __	425	430	422	434
6	Cost price = 763, Selling Price = 236 Loss = __	527	534	519	524
7	Cost price = 779, Selling Price = 1317 Profit = __	529	538	542	547
8	Cost price = 144, Selling Price = 92 Loss = __	52	59	51	49
9	Cost price = 773, Selling Price = 378 Loss = __	399	397	386	395
10	Cost price = 590, Selling Price = 177 Loss = __	413	420	419	414
11	Cost price = 606, Selling Price = 151 Loss = __	461	455	458	448
12	Cost price = 714, Selling Price = 235 Loss = __	482	477	471	479
13	Cost price = 816, Selling Price = 1380 Profit = __	568	562	561	564
14	Cost price = 896, Selling Price = 268 Loss = __	635	638	628	631



Section 11

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$2^2 = _$	4	0	8	3
2	$4^2 = _$	23	24	9	16
3	$8^2 = _$	62	69	64	68
4	$9^2 = _$	81	74	71	75
5	$22^2 = _$	478	484	488	482
6	$26^2 = _$	678	676	684	668
7	$42^2 = _$	1764	1763	1768	1756
8	$54^2 = _$	2909	2911	2916	2917
9	$55^2 = _$	3015	3022	3019	3025
10	$71^2 = _$	5044	5031	5041	5051
11	$91^2 = _$	8277	8279	8281	8278
12	$93^2 = _$	8654	8649	8658	8650
13	$94^2 = _$	8834	8836	8833	8846
14	$98^2 = _$	9604	9606	9613	9596

Section 12

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$155 + 68 - 2 = _$	228	229	221	218
2	$339 + 70 - 6 = _$	406	413	403	401
3	$610 + 52 - 9 = _$	652	647	653	646
4	$794 + 89 - 8 = _$	876	885	874	875
5	$993 + 14 - 1 = _$	1000	1006	998	1008
6	$465 - 85 + 3 = _$	389	383	385	391
7	$521 - 70 + 2 = _$	444	458	462	453
8	$580 - 77 + 1 = _$	507	504	511	512
9	$539 - 29 + 8 = _$	513	510	524	518
10	$702 - 69 + 8 = _$	646	637	632	641



Section 13

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$40 \times _ = 80$	2	6	3200	320
2	$82 \times _ = 246$	1	4	7	3
3	$34 \times _ = 204$	11	6	1	15
4	$94 \times _ = 658$	7	15	0	6
5	$36 \times _ = 288$	14	9	6	8

Section 14

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$2 \times 9 \times 2 = _$	41	27	33	36
2	$4 \times 2 \times 8 = _$	54	67	64	72
3	$4 \times 3 \times 6 = _$	66	72	63	68
4	$4 \times 7 \times 6 = _$	168	169	167	165
5	$7 \times 6 \times 8 = _$	326	341	336	343

Section 15

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$28 \times 25 = _$	701	698	707	700
2	$98 \times 15 = _$	1460	1470	1479	1463
3	$43 \times 46 = _$	1977	1978	1979	1974
4	$94 \times 25 = _$	2357	2350	2352	2355
5	$74 \times 34 = _$	2525	2516	2518	2508
6	$36 \times 81 = _$	2916	2921	2915	2910
7	$55 \times 54 = _$	2961	2970	2979	2960
8	$38 \times 90 = _$	3413	3420	3411	3428
9	$47 \times 73 = _$	3431	3432	3424	3437
10	$91 \times 91 = _$	8284	8279	8281	8280
11	$\sqrt{100} = _$	12	18	10	6
12	$\sqrt{196} = _$	19	14	9	23
13	$\sqrt{441} = _$	21	18	16	20
14	$\sqrt{529} = _$	16	22	23	33
15	$\sqrt{676} = _$	20	26	25	30
16	$\sqrt{1024} = _$	33	42	29	32



17	$\sqrt{1296} = _$	38	36	31	45
18	$\sqrt{1849} = _$	44	43	36	45
19	$\sqrt{2401} = _$	51	49	45	42
20	$\sqrt{3481} = _$	50	53	61	59
21	$\sqrt{4096} = _$	63	64	73	57
22	$\sqrt{5625} = _$	75	77	69	78
23	$\sqrt{6724} = _$	85	82	87	81
24	$\sqrt{6889} = _$	88	83	93	82
25	$\sqrt{9216} = _$	96	91	90	87

Section 16

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Cube Root of 12167 = $_$	28	19	23	31
2	Cube Root of 15625 = $_$	35	15	32	25
3	Cube Root of 19683 = $_$	27	19	24	18
4	Cube Root of 21952 = $_$	38	30	18	28
5	Cube Root of 27000 = $_$	35	28	30	31
6	Cube Root of 32768 = $_$	24	37	32	40
7	Cube Root of 35937 = $_$	24	25	33	42
8	Cube Root of 54872 = $_$	48	38	41	45
9	Cube Root of 74088 = $_$	43	42	32	50
10	Cube Root of 91125 = $_$	54	43	52	45

Section 17

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$357 + 17 = _$	374	377	376	365
2	$638 + 35 = _$	673	679	682	669
3	$590 + 85 = _$	675	666	671	665
4	$792 + 98 = _$	883	890	887	900
5	$998 + 99 = _$	1107	1097	1099	1103
6	$279 - 49 = _$	232	240	231	230
7	$347 - 30 = _$	317	315	313	310
8	$510 - 18 = _$	492	494	501	491
9	$727 - 41 = _$	686	695	691	694
10	$845 - 61 = _$	778	794	784	781



Section 18

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$129 + 342 = \underline{\quad}$	468	471	467	476
2	$163 + 351 = \underline{\quad}$	519	523	514	516
3	$218 + 940 = \underline{\quad}$	1153	1149	1156	1158
4	$655 + 806 = \underline{\quad}$	1471	1456	1465	1461
5	$747 + 954 = \underline{\quad}$	1699	1707	1691	1701
6	$173 - 40 + 13 = \underline{\quad}$	154	146	153	150
7	$324 - 94 + 58 = \underline{\quad}$	288	292	283	287
8	$390 - 63 + 40 = \underline{\quad}$	367	372	371	376
9	$503 - 69 + 69 = \underline{\quad}$	503	509	512	495
10	$799 - 27 + 15 = \underline{\quad}$	794	790	787	782
11	$149 + 97 - 12 = \underline{\quad}$	236	234	237	228
12	$807 + 44 - 15 = \underline{\quad}$	833	836	841	844
13	$874 + 50 - 36 = \underline{\quad}$	897	895	893	888
14	$820 + 97 - 27 = \underline{\quad}$	881	897	890	880
15	$988 + 69 - 27 = \underline{\quad}$	1021	1028	1034	1030

Section 19

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$4839 - 307 = \underline{\quad}$	4542	4527	4532	4523
2	$6142 - 413 = \underline{\quad}$	5723	5737	5721	5729
3	$6614 - 586 = \underline{\quad}$	6036	6021	6032	6028
4	$8152 - 789 = \underline{\quad}$	7363	7359	7364	7366
5	$9563 - 610 = \underline{\quad}$	8949	8958	8953	8961

Section 20

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$356 + 476 + 532 = \underline{\quad}$	1356	1358	1364	1372
2	$463 + 473 + 614 = \underline{\quad}$	1557	1550	1552	1549
3	$146 + 534 + 876 = \underline{\quad}$	1548	1555	1556	1553
4	$806 + 897 + 271 = \underline{\quad}$	1976	1974	1980	1969
5	$875 + 901 + 855 = \underline{\quad}$	2631	2636	2635	2641



Section 21

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$(24 + 92) \times (18 + 10) = _$	3251	3248	3240	3257
2	$(70 + 21) \times (68 + 53) = _$	11005	11021	11007	11011
3	$(52 + 62) \times (76 + 28) = _$	11860	11856	11857	11861
4	$(56 + 99) \times (29 + 83) = _$	17358	17360	17363	17368
5	$(86 + 60) \times (81 + 54) = _$	19710	19701	19705	19703

Section 22

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Multiple of 87 = $_$	436, 437, 697	174, 435, 696	442, 444, 705	180, 441, 702
2	Multiple of 10 = $_$	30, 40, 50	33, 42, 51	34, 45, 56	37, 49, 59
3	Multiple of 61 = $_$	306, 491, 550	311, 492, 555	314, 497, 557	305, 488, 549
4	Multiple of 19 = $_$	58, 115, 173	120, 176, 177	57, 114, 171	123, 179, 180
5	Multiple of 34 = $_$	71, 105, 241	73, 108, 243	68, 102, 238	75, 110, 245

Section 23

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Find the LCM of 16 and 32 ?	35	27	31	32
2	Find the LCM of 12 and 39 ?	162	156	158	153
3	Find the LCM of 58 and 21 ?	1218	1210	1217	1224
4	Find the LCM of 76 and 42 ?	1596	1591	1589	1604
5	Find the LCM of 97 and 20 ?	1940	1935	1948	1939
6	Find the LCM of 31 and 72 ?	2228	2232	2226	2223
7	Find the LCM of 59 and 49 ?	2896	2891	2886	2882
8	Find the LCM of 73 and 70 ?	5104	5118	5109	5110
9	Find the LCM of 61 and 94 ?	5733	5734	5736	5743
10	Find the LCM of 93 and 94 ?	8742	8737	8750	8745



Section 24

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Find the HCF of 18, 35 = _	10	1	8	3
2	Find the HCF of 82, 99 = _	9	1	0	8
3	Find the HCF of 51, 35 = _	11	3	7	1
4	Find the HCF of 52, 85 = _	11	1	7	5
5	Find the HCF of 58, 16 = _	3	4	2	9
6	Find the HCF of 62, 44 = _	4	5	7	2
7	Find the HCF of 58, 40 = _	3	9	8	2
8	Find the HCF of 68, 46 = _	4	2	3	1
9	Find the HCF of 30, 35 = _	14	5	7	11
10	Find the HCF of 45, 54 = _	2	19	9	16

Section 25

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	$108 / 3 = _$	31	36	45	40
2	$315 / 7 = _$	44	45	52	48
3	$846 / 9 = _$	101	86	85	94
4	$752 / 4 = _$	184	188	187	195
5	$798 / 3 = _$	257	266	260	256

Section 26

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Remainder of $51 / 2 = _$	6	11	1	8
2	Remainder of $45 / 4 = _$	1	4	5	9
3	Remainder of $23 / 4 = _$	3	7	1	6
4	Remainder of $59 / 6 = _$	5	8	9	11
5	Remainder of $16 / 9 = _$	6	17	13	7
6	Remainder of $679 / 52 = _$	2	7	13	3
7	Remainder of $803 / 13 = _$	12	10	7	11
8	Remainder of $660 / 23 = _$	8	22	21	16
9	Remainder of $704 / 76 = _$	26	24	15	20
10	Remainder of $293 / 34 = _$	24	21	20	28
11	Remainder of $463 / 49 = _$	21	22	25	26



12	Remainder of $938 / 57 = _$	36	26	19	29
13	Remainder of $228 / 39 = _$	41	33	35	27
14	Remainder of $612 / 64 = _$	32	42	27	36
15	Remainder of $516 / 90 = _$	65	61	66	69

Section 27

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	25% of 12 = $_$	0	3	2	8
2	25% of 28 = $_$	1	0	7	10
3	10% of 90 = $_$	0	8	9	1
4	25% of 52 = $_$	19	22	6	13
5	20% of 85 = $_$	22	17	8	11
6	50% of 38 = $_$	19	26	13	25
7	25% of 88 = $_$	12	23	13	22
8	50% of 46 = $_$	19	31	17	23
9	50% of 222 = $_$	113	119	111	117
10	25% of 884 = $_$	221	213	226	215
11	50% of 606 = $_$	310	311	302	303
12	42% of 950 = $_$	399	401	400	393

Section 28

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	Prime Factors of 18 = $_$	3, 4, 6	7, 8	11, 12	2, 3, 3
2	Prime Factors of 90 = $_$	2, 3, 3, 5	4, 5, 6	7, 10	10, 12, 13
3	Prime Factors of 62 = $_$	2, 31	4, 33	7, 37	10, 40
4	Prime Factors of 51 = $_$	3, 17	4, 18	9, 21	10, 24
5	Prime Factors of 87 = $_$	6, 30	8, 35	11, 36	3, 29
6	Prime Factors of 121 = $_$	12, 14	15	11, 11	18, 20
7	Prime Factors of 254 = $_$	4, 129	2, 127	11, 135	8, 131
8	Prime Factors of 744 = $_$	2, 2, 2, 3, 31	4, 5, 33	7, 8, 37	9, 10, 11, 12, 40
9	Prime Factors of 280 = $_$	2, 2, 2, 5, 7	4, 5, 7, 9	6, 11	10, 11, 14, 15



10	Prime Factors of 916 = _	4, 230	8, 235	2, 2, 229	10, 11, 236
11	Prime Factors of 164 = _	4, 5, 42	7, 8, 47	2, 2, 41	11, 50
12	Prime Factors of 630 = _	3, 6, 8	7, 8, 9, 10, 13	10, 11, 12, 13, 14	2, 3, 3, 5, 7
13	Prime Factors of 410 = _	4, 8, 44	2, 5, 41	6, 11, 45	9, 12, 50
14	Prime Factors of 970 = _	4, 7, 100	2, 5, 97	6, 10, 101	9, 12, 104
15	Prime Factors of 813 = _	4, 272	9, 276	11, 278	3, 271

Section 29

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	77 : 623 = _	18:90	11:89	12:92	19:94
2	21 : 721 = _	7:110	9:104	9:108	3:103
3	27 : 279 = _	4:36	3:31	5:36	11:38
4	15 : 295 = _	9:61	3:59	4:68	7:64
5	40 : 232 = _	7:35	5:29	14:33	8:31
6	63 : 207 = _	14:31	14:28	9:26	7:23
7	49 : 679 = _	16:103	8:99	10:99	7:97
8	10 : 55 = _	6:20	2:11	11:13	7:19
9	24 : 40 = _	10:13	3:5	7:7	6:13
10	24 : 56 = _	12:14	12:15	8:9	3:7
11	45 : 99 = _	12:17	12:15	13:13	5:11
12	49 : 14 = _	15:9	7:2	14:10	15:6
13	56 : 16 = _	7:2	9:5	13:6	15:9
14	42 : 30 = _	7:5	9:7	9:6	9:13

Section 30

Sr.No	Question Content	Option 1	Option 2	Option 3	Option 4
1	162 / 81 = _	8	4	2	3
2	408 / 68 = _	3	6	2	9
3	912 / 57 = _	15	25	9	16
4	832 / 52 = _	13	16	18	6
5	572 / 22 = _	26	34	17	25