



# Diamond Challenge 1

I can add 2 digit numbers



$51 + 28$	$52 + 38$	$65 + 72$	$41 + 39$	$67 + 12$	$45 + 43$	$75 + 42$	$51 + 19$	$47 + 12$	$87 + 42$
$63 + 40$	$70 + 19$	$40 + 82$	$79 + 30$	$61 + 29$	$25 + 44$	$21 + 49$	$42 + 65$	$43 + 26$	$71 + 42$
$77 + 12$	$46 + 22$	$71 + 32$	$18 + 31$	$22 + 57$	$91 + 32$	$35 + 62$	$77 + 12$	$28 + 51$	$59 + 10$
$63 + 42$	$27 + 32$	$29 + 11$	$31 + 49$	$38 + 52$	$16 + 42$	$38 + 41$	$47 + 23$	$82 + 13$	$27 + 41$
$53 + 27$	$15 + 34$	$50 + 74$	$15 + 35$	$67 + 12$	$41 + 72$	$21 + 28$	$50 + 39$	$72 + 46$	$71 + 32$
$86 + 13$	$16 + 83$	$41 + 58$	$37 + 43$	$18 + 82$	$53 + 35$	$51 + 68$	$78 + 61$	$17 + 12$	$51 + 28$
$33 + 56$	$57 + 61$	$27 + 32$	$71 + 30$	$63 + 16$	$87 + 53$	$41 + 73$	$80 + 31$	$53 + 16$	$32 + 26$
$57 + 40$	$31 + 81$	$50 + 83$	$53 + 70$	$67 + 32$	$33 + 21$	$63 + 53$	$25 + 24$	$62 + 16$	$28 + 71$
$75 + 15$	$26 + 52$	$39 + 21$	$28 + 31$	$93 + 11$	$81 + 32$	$38 + 62$	$32 + 71$	$19 + 10$	$91 + 13$
$52 + 47$	$38 + 81$	$53 + 54$	$80 + 66$	$43 + 16$	$16 + 24$	$35 + 25$	$27 + 12$	$95 + 13$	$31 + 98$

Score \_\_\_\_\_



# Diamond Challenge 2

I can subtract 2 digit numbers



77 - 25	58 - 27	64 - 22	71 - 32	67 - 15	49 - 28	79 - 48	59 - 29	48 - 26	86 - 44
67 - 47	74 - 39	56 - 22	78 - 57	79 - 29	89 - 48	77 - 46	76 - 35	68 - 26	73 - 42
79 - 48	49 - 29	64 - 32	99 - 79	68 - 37	93 - 72	74 - 62	77 - 16	78 - 56	59 - 12
69 - 49	97 - 74	44 - 12	79 - 43	74 - 52	99 - 42	79 - 49	49 - 24	88 - 17	69 - 47
57 - 27	98 - 36	58 - 34	88 - 36	66 - 15	85 - 32	89 - 28	52 - 41	78 - 46	73 - 42
89 - 18	58 - 27	59 - 28	78 - 47	78 - 27	99 - 78	57 - 35	73 - 51	56 - 26	59 - 28
77 - 35	59 - 36	77 - 44	79 - 31	69 - 15	88 - 57	48 - 27	86 - 51	59 - 18	74 - 22
57 - 23	78 - 26	59 - 27	56 - 23	61 - 21	77 - 25	67 - 37	45 - 12	62 - 11	88 - 26
77 - 13	56 - 24	78 - 26	78 - 33	98 - 55	82 - 21	78 - 37	82 - 61	69 - 19	99 - 17
55 - 13	78 - 41	59 - 28	88 - 66	47 - 14	96 - 24	75 - 23	47 - 15	98 - 17	78 - 22

Score \_\_\_\_\_



# Diamond Challenge 3

I can use place value in multiplication



$60 \times 3$	$10 \times 5$	$100 \times 7$	$50 \times 6$	$70 \times 2$	$80 \times 4$	$90 \times 1$	$30 \times 9$	$30 \times 8$	$20 \times 10$
$90 \times 5$	$80 \times 1$	$10 \times 8$	$60 \times 8$	$70 \times 4$	$20 \times 7$	$10 \times 6$	$10 \times 2$	$100 \times 9$	$50 \times 3$
$90 \times 7$	$60 \times 6$	$30 \times 3$	$80 \times 2$	$10 \times 9$	$100 \times 1$	$20 \times 5$	$70 \times 9$	$40 \times 4$	$40 \times 8$
$50 \times 2$	$30 \times 4$	$70 \times 1$	$10 \times 10$	$100 \times 5$	$60 \times 9$	$10 \times 3$	$20 \times 6$	$80 \times 8$	$10 \times 7$
$100 \times 9$	$20 \times 9$	$30 \times 5$	$10 \times 7$	$90 \times 3$	$70 \times 6$	$60 \times 2$	$20 \times 8$	$40 \times 1$	$90 \times 4$
$20 \times 1$	$100 \times 3$	$70 \times 10$	$30 \times 6$	$20 \times 2$	$30 \times 7$	$80 \times 10$	$100 \times 4$	$30 \times 10$	$40 \times 5$
$50 \times 9$	$100 \times 2$	$70 \times 8$	$60 \times 4$	$50 \times 7$	$50 \times 5$	$20 \times 3$	$30 \times 1$	$80 \times 6$	$60 \times 10$
$80 \times 9$	$50 \times 8$	$70 \times 5$	$60 \times 1$	$40 \times 6$	$80 \times 3$	$40 \times 9$	$80 \times 7$	$20 \times 4$	$40 \times 2$
$60 \times 5$	$90 \times 6$	$40 \times 3$	$90 \times 8$	$40 \times 10$	$90 \times 2$	$50 \times 4$	$90 \times 10$	$40 \times 7$	$70 \times 1$
$10 \times 4$	$50 \times 10$	$30 \times 2$	$60 \times 7$	$50 \times 1$	$90 \times 9$	$100 \times 10$	$80 \times 5$	$70 \times 3$	$100 \times 6$

Score \_\_\_\_\_



# Diamond Challenge 4

I use place value in division



$150 \div 3$	$210 \div 7$	$400 \div 8$	$240 \div 8$	$250 \div 5$	$120 \div 2$	$180 \div 6$	$270 \div 9$	$160 \div 4$	$200 \div 10$
$420 \div 6$	$140 \div 2$	$120 \div 6$	$720 \div 9$	$120 \div 4$	$700 \div 10$	$120 \div 3$	$630 \div 7$	$50 \div 5$	$480 \div 6$
$200 \div 4$	$420 \div 6$	$240 \div 6$	$300 \div 3$	$350 \div 5$	$100 \div 2$	$630 \div 9$	$600 \div 6$	$320 \div 8$	$480 \div 6$
$90 \div 9$	$270 \div 3$	$350 \div 7$	$450 \div 5$	$360 \div 9$	$560 \div 8$	$80 \div 8$	$240 \div 4$	$140 \div 7$	$160 \div 2$
$300 \div 6$	$560 \div 7$	$540 \div 9$	$80 \div 2$	$100 \div 10$	$40 \div 4$	$400 \div 10$	$300 \div 5$	$180 \div 3$	$300 \div 6$
$480 \div 8$	$100 \div 5$	$320 \div 4$	$490 \div 7$	$800 \div 8$	$150 \div 3$	$60 \div 2$	$420 \div 7$	$600 \div 6$	$720 \div 8$
$220 \div 2$	$160 \div 8$	$540 \div 6$	$60 \div 3$	$500 \div 10$	$240 \div 6$	$250 \div 5$	$250 \div 5$	$360 \div 4$	$900 \div 10$
$300 \div 10$	$400 \div 4$	$280 \div 7$	$250 \div 5$	$810 \div 9$	$120 \div 2$	$120 \div 6$	$400 \div 8$	$180 \div 9$	$210 \div 3$
$150 \div 5$	$360 \div 6$	$200 \div 2$	$640 \div 8$	$490 \div 7$	$450 \div 9$	$240 \div 3$	$320 \div 4$	$600 \div 10$	$360 \div 6$
$540 \div 6$	$900 \div 9$	$80 \div 4$	$800 \div 10$	$90 \div 3$	$270 \div 3$	$700 \div 7$	$420 \div 6$	$180 \div 2$	$350 \div 5$

Score \_\_\_\_\_



# Diamond Challenge 5

I can find unit fractions of a number



$\frac{1}{4}$ of 12	$\frac{1}{3}$ of 15	$\frac{1}{5}$ of 100	$\frac{1}{8}$ of 48	$\frac{1}{7}$ of 77	$\frac{1}{9}$ of 27	$\frac{1}{6}$ of 36	$\frac{1}{5}$ of 45	$\frac{1}{7}$ of 28	$\frac{1}{8}$ of 16
$\frac{1}{7}$ of 49	$\frac{1}{6}$ of 36	$\frac{1}{8}$ of 24	$\frac{1}{5}$ of 50	$\frac{1}{10}$ of 50	$\frac{1}{3}$ of 90	$\frac{1}{3}$ of 27	$\frac{1}{4}$ of 24	$\frac{1}{6}$ of 42	$\frac{1}{5}$ of 30
$\frac{1}{10}$ of 60	$\frac{1}{5}$ of 25	$\frac{1}{3}$ of 60	$\frac{1}{4}$ of 40	$\frac{1}{4}$ of 24	$\frac{1}{8}$ of 64	$\frac{1}{7}$ of 35	$\frac{1}{9}$ of 270	$\frac{1}{7}$ of 210	$\frac{1}{6}$ of 60
$\frac{1}{5}$ of 75	$\frac{1}{5}$ of 100	$\frac{1}{4}$ of 100	$\frac{1}{9}$ of 450	$\frac{1}{6}$ of 54	$\frac{1}{6}$ of 240	$\frac{1}{3}$ of 24	$\frac{1}{3}$ of 120	$\frac{1}{8}$ of 40	$\frac{1}{8}$ of 32
$\frac{1}{10}$ of 90	$\frac{1}{7}$ of 70	$\frac{1}{3}$ of 150	$\frac{1}{4}$ of 200	$\frac{1}{7}$ of 35	$\frac{1}{8}$ of 88	$\frac{1}{5}$ of 55	$\frac{1}{9}$ of 81	$\frac{1}{4}$ of 60	$\frac{1}{6}$ of 180
$\frac{1}{9}$ of 72	$\frac{1}{8}$ of 240	$\frac{1}{5}$ of 20	$\frac{1}{6}$ of 36	$\frac{1}{5}$ of 80	$\frac{1}{7}$ of 21	$\frac{1}{4}$ of 80	$\frac{1}{3}$ of 39	$\frac{1}{5}$ of 55	$\frac{1}{7}$ of 63
$\frac{1}{5}$ of 45	$\frac{1}{3}$ of 15	$\frac{1}{8}$ of 56	$\frac{1}{9}$ of 54	$\frac{1}{4}$ of 16	$\frac{1}{7}$ of 140	$\frac{1}{6}$ of 420	$\frac{1}{9}$ of 27	$\frac{1}{5}$ of 65	$\frac{1}{4}$ of 80
$\frac{1}{6}$ of 66	$\frac{1}{4}$ of 48	$\frac{1}{4}$ of 160	$\frac{1}{3}$ of 24	$\frac{1}{8}$ of 160	$\frac{1}{4}$ of 120	$\frac{1}{9}$ of 18	$\frac{1}{7}$ of 70	$\frac{1}{4}$ of 40	$\frac{1}{6}$ of 30
$\frac{1}{4}$ of 28	$\frac{1}{3}$ of 33	$\frac{1}{5}$ of 40	$\frac{1}{9}$ of 90	$\frac{1}{5}$ of 30	$\frac{1}{6}$ of 120	$\frac{1}{6}$ of 66	$\frac{1}{5}$ of 80	$\frac{1}{3}$ of 36	$\frac{1}{4}$ of 120
$\frac{1}{3}$ of 27	$\frac{1}{4}$ of 80	$\frac{1}{5}$ of 45	$\frac{1}{6}$ of 66	$\frac{1}{5}$ of 90	$\frac{1}{4}$ of 28	$\frac{1}{4}$ of 60	$\frac{1}{8}$ of 240	$\frac{1}{9}$ of 45	$\frac{1}{7}$ of 210

Score \_\_\_\_\_



# Diamond Challenge 6

I know all  $\times$  facts up to  $12 \times 12$



$7 \times 2$	$6 \times 7$	$2 \times 6$	$1 \times 7$	$9 \times 9$	$4 \times 4$	$8 \times 8$	$6 \times 3$	$1 \times 10$	$9 \times 4$
$0 \times 6$	$1 \times 4$	$3 \times 3$	$10 \times 3$	$0 \times 6$	$1 \times 8$	$8 \times 6$	$4 \times 9$	$4 \times 2$	$7 \times 7$
$10 \times 5$	$9 \times 0$	$3 \times 5$	$1 \times 9$	$6 \times 7$	$2 \times 10$	$10 \times 0$	$4 \times 5$	$8 \times 2$	$4 \times 8$
$5 \times 2$	$7 \times 8$	$8 \times 9$	$3 \times 10$	$4 \times 4$	$8 \times 4$	$8 \times 6$	$1 \times 3$	$5 \times 0$	$4 \times 6$
$6 \times 6$	$2 \times 8$	$9 \times 6$	$9 \times 5$	$9 \times 8$	$4 \times 10$	$10 \times 7$	$10 \times 9$	$7 \times 9$	$9 \times 3$
$3 \times 9$	$5 \times 4$	$8 \times 5$	$5 \times 9$	$9 \times 4$	$3 \times 8$	$2 \times 2$	$5 \times 5$	$10 \times 9$	$5 \times 10$
$8 \times 4$	$4 \times 7$	$8 \times 0$	$9 \times 2$	$6 \times 10$	$7 \times 3$	$2 \times 9$	$2 \times 7$	$9 \times 7$	$6 \times 4$
$8 \times 3$	$7 \times 8$	$8 \times 7$	$6 \times 8$	$4 \times 8$	$7 \times 10$	$6 \times 5$	$10 \times 6$	$8 \times 5$	$9 \times 7$
$9 \times 7$	$8 \times 10$	$5 \times 6$	$0 \times 7$	$3 \times 6$	$3 \times 7$	$9 \times 5$	$1 \times 6$	$7 \times 6$	$5 \times 8$
$1 \times 2$	$9 \times 9$	$7 \times 5$	$5 \times 8$	$7 \times 4$	$0 \times 8$	$6 \times 9$	$5 \times 7$	$1 \times 5$	$9 \times 10$

Score \_\_\_\_\_



# Diamond Challenge 7

I know  $\div$  facts for all  $\times$  tables



$14 \div 7$	$12 \div 6$	$27 \div 9$	$21 \div 3$	$100 \div 10$	$40 \div 4$	$40 \div 8$	$4 \div 2$	$45 \div 5$	$15 \div 5$
$50 \div 5$	$72 \div 9$	$16 \div 2$	$8 \div 8$	$63 \div 7$	$48 \div 6$	$20 \div 4$	$70 \div 10$	$24 \div 3$	$25 \div 5$
$42 \div 0$	$48 \div 8$	$10 \div 10$	$6 \div 3$	$24 \div 4$	$18 \div 9$	$45 \div 5$	$6 \div 2$	$60 \div 6$	$42 \div 7$
$7 \div 7$	$6 \div 6$	$3 \div 3$	$5 \div 5$	$18 \div 2$	$80 \div 10$	$21 \div 7$	$32 \div 8$	$81 \div 9$	$32 \div 4$
$4 \div 4$	$20 \div 10$	$20 \div 2$	$56 \div 8$	$18 \div 6$	$27 \div 3$	$36 \div 9$	$10 \div 5$	$56 \div 7$	$36 \div 6$
$30 \div 5$	$72 \div 8$	$36 \div 6$	$9 \div 3$	$90 \div 9$	$24 \div 8$	$12 \div 2$	$90 \div 10$	$16 \div 4$	$50 \div 10$
$12 \div 4$	$63 \div 9$	$28 \div 7$	$40 \div 10$	$72 \div 8$	$14 \div 2$	$20 \div 5$	$42 \div 6$	$15 \div 3$	$12 \div 6$
$2 \div 2$	$70 \div 7$	$80 \div 8$	$40 \div 5$	$28 \div 4$	$30 \div 6$	$12 \div 3$	$64 \div 8$	$10 \div 10$	$9 \div 9$
$80 \div 8$	$36 \div 4$	$60 \div 10$	$10 \div 2$	$30 \div 3$	$8 \div 8$	$54 \div 9$	$35 \div 5$	$35 \div 7$	$56 \div 6$
$16 \div 8$	$49 \div 7$	$30 \div 10$	$25 \div 5$	$45 \div 9$	$4 \div 4$	$24 \div 6$	$8 \div 2$	$26 \div 0$	$18 \div 3$

Score \_\_\_\_\_



# Diamond Challenge 8

I can round numbers written to 2 decimal places to the nearest whole number



2.34	7.85	1.65	7.77	8.43	9.01	6.13	4.82	5.78	1.13
6.95	3.68	1.23	6.90	1.31	4.45	9.89	7.11	8.15	9.80
1.09	8.37	2.93	5.89	2.33	4.18	3.79	4.89	1.22	9.55
4.03	7.81	5.30	8.17	9.02	1.43	9.50	8.66	7.44	1.60
5.27	6.89	3.99	1.66	2.45	9.03	7.67	1.02	9.76	4.50
3.69	4.19	8.06	7.56	1.88	3.32	9.63	6.10	5.94	9.18
2.22	9.12	1.34	5.50	7.13	9.08	7.34	1.67	2.56	7.30
4.93	6.31	8.49	1.27	2.01	8.44	9.08	4.99	1.10	5.50
6.47	9.09	7.15	3.65	9.39	1.07	2.31	6.94	8.17	4.03
3.57	1.19	6.06	4.33	2.45	8.29	4.38	7.67	1.05	3.56

Score \_\_\_\_\_





# Diamond Challenge 9

I can write a percentage as a fraction and vice versa



$\frac{1}{4}$	5%	10%	7%	80%	60%	12.5%	4%	$\frac{1}{2}$	11%
$\frac{1}{8}$	40%	$\frac{1}{3}$	$\frac{1}{4}$	2%	$\frac{1}{2}$	33.3%	5%	50%	3%
$\frac{1}{2}$	30%	1%	20%	$\frac{1}{8}$	$\frac{1}{3}$	1%	14%	90%	30%
10%	$\frac{1}{3}$	70%	$\frac{1}{2}$	$\frac{1}{4}$	80%	6%	13%	$\frac{1}{3}$	25%
35%	60%	33.3%	4%	$\frac{1}{3}$	10%	78%	$\frac{1}{4}$	$\frac{1}{8}$	50%
2%	15%	9%	$\frac{1}{3}$	4%	25%	$\frac{1}{2}$	55%	12.5%	$\frac{1}{3}$
$\frac{1}{2}$	$\frac{1}{3}$	40%	13%	50%	20%	33.3%	$\frac{1}{4}$	70%	25%
12.5%	25%	$\frac{1}{4}$	70%	$\frac{1}{8}$	5%	$\frac{1}{3}$	10%	50%	$\frac{1}{2}$
$\frac{1}{8}$	30%	7%	$\frac{1}{3}$	90%	2%	12.5%	6%	80%	1%
60%	10%	12.5%	$\frac{1}{2}$	11%	50%	$\frac{1}{4}$	5%	$\frac{1}{8}$	8%

Score \_\_\_\_\_



# Diamond Challenge 10

I know square numbers up to  $12 \times 12$   
and related square roots



$9^2$	$2^2$	$3^2$	$7^2$	25	$4^2$	$1^2$	$8^2$	$6^2$	100
$3^2$	49	$4^2$	$2^2$	$1^2$	$9^2$	$5^2$	36	$10^2$	$8^2$
$2^2$	$10^2$	1	$6^2$	$8^2$	8	$7^2$	$3^2$	$9^2$	25
16	$5^2$	$6^2$	49	$3^2$	$1^2$	64	$2^2$	$7^2$	$10^2$
$3^2$	$7^2$	$8^2$	4	$5^2$	$9^2$	$4^2$	$1^2$	100	$6^2$
$1^2$	81	$4^2$	$6^2$	$10^2$	9	$7^2$	$5^2$	$2^2$	$8^2$
$5^2$	$10^2$	9	$8^2$	$4^2$	$2^2$	$1^2$	$9^2$	$6^2$	49
64	$2^2$	$1^2$	$6^2$	$9^2$	$4^2$	25	$7^2$	$3^2$	$8^2$
$4^2$	$10^2$	$5^2$	$7^2$	9	$8^2$	$6^2$	$2^2$	$1^2$	$8^2$
$6^2$	81	$3^2$	$8^2$	1	$10^2$	$4^2$	$5^2$	$7^2$	4

Score \_\_\_\_\_