



SUMMER MATH REVIEW
FOR STUDENTS ENTERING ALGEBRA 1

NAME: _____

To be successful in math, it is **essential that you are fluent in your addition and multiplication facts**. This means you should be able to recall basic facts **quickly and accurately**—without needing to count or use a calculator.

Being fluent with your math facts will help you:

- Solve more complex problems with confidence,
- Work more efficiently during lessons and tests, and
- Build a strong foundation for higher-level math.

You are expected to practice your addition and multiplication facts regularly until you can recall them automatically. Consistent practice will make math easier, faster, and more enjoyable!

How You Can Practice Your Math Facts:

1. **Make and use flashcards** — practice a few minutes each day.
2. **Play online math games** like *XtraMath*, *Prodigy*, *Khan Academy*, or *Math Playground*.
3. **Set a timer** for 2–3 minutes and see how many facts you can answer correctly — then try to beat your score next time!
4. **Write fact families** (for example, $3 \times 4 = 12$, $4 \times 3 = 12$, $12 \div 4 = 3$, $12 \div 3 = 4$).
5. **Practice with a friend or family member** — quiz each other or make it a fun competition.
6. **Use math apps** that build speed and accuracy through repetition and games.
7. **Make it fun** — create chants, songs, or rhythms to remember tricky facts.

ADDITION CHART

+	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12	13
2	2	3	4	5	6	7	8	9	10	11	12	13	14
3	3	4	5	6	7	8	9	10	11	12	13	14	15
4	4	5	6	7	8	9	10	11	12	13	14	15	16
5	5	6	7	8	9	10	11	12	13	14	15	16	17
6	6	7	8	9	10	11	12	13	14	15	16	17	18
7	7	8	9	10	11	12	13	14	15	16	17	18	19
8	8	9	10	11	12	13	14	15	16	17	18	19	20
9	9	10	11	12	13	14	15	16	17	18	19	20	21
10	10	11	12	13	14	15	16	17	18	19	20	21	22
11	11	12	13	14	15	16	17	18	19	20	21	22	23
12	12	13	14	15	16	17	18	19	20	21	22	23	24

MULTIPLICATION CHART TO 12X12

X	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Week 1: Integer Operations NO CALCULATOR

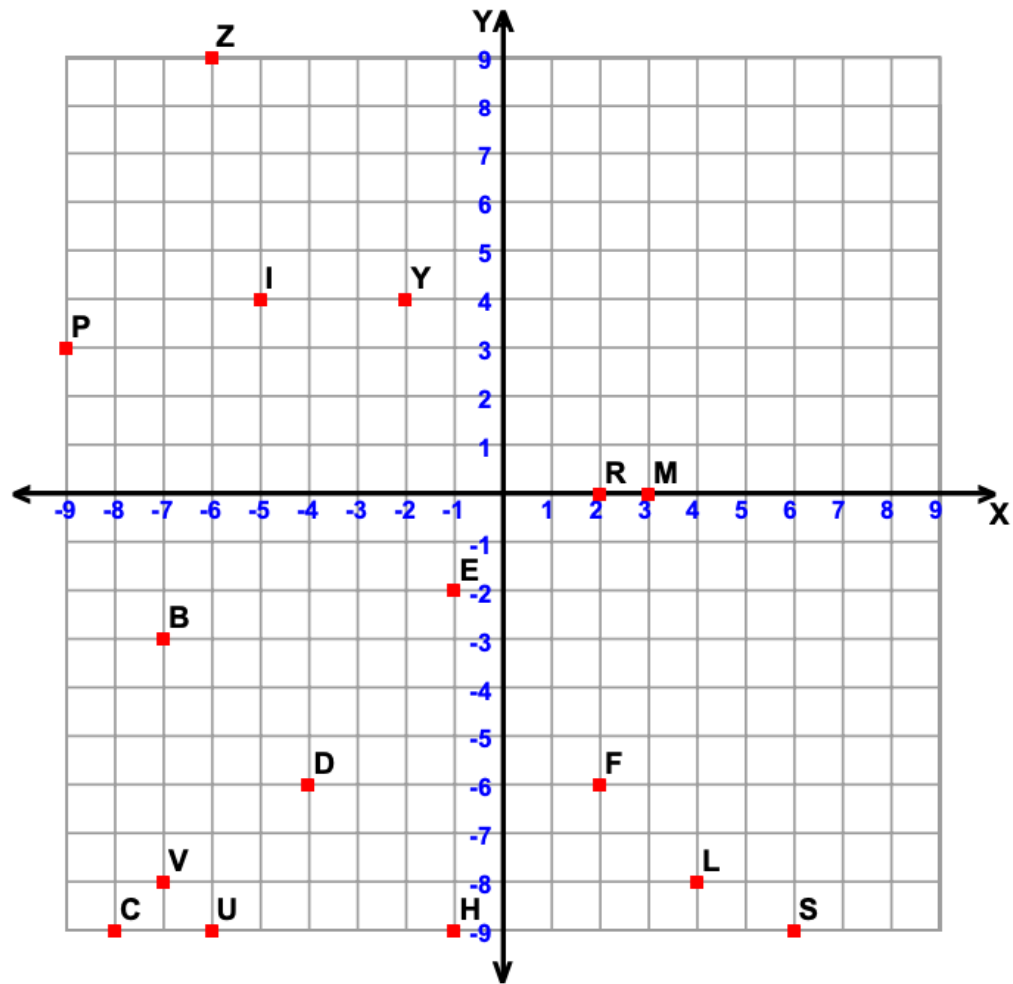
1) $7 + (-3)$	2) $9(-3)$
3) $-8 + 12$	4) $24 \div (-8)$
5) $15 - 9$	6) $(-18) \div 6$
7) $-10 - (-4)$	8) $(-5)(-2)(-3)$
9) $(-6) + (-7)$	10) $(-4)^2$
11) $20 - 15 + 9$	12) -3^2
13) $7 + 3 \times -5$	14) $(15 - 9)^2 \div 3$
15) $(8 - 2)^2$	16) $4(3 + 7) - 12$
17) $3 + 4(2 - 6)$	18) $10 - (3 + 2)^2$
19) $12 - 3^2 + 1$	20) $ -3(4 + 1) $

Week 2: Fractions — Operations NO CALCULATOR

1) $\frac{1}{2} + \frac{3}{4}$	2) $\frac{5}{6} - \frac{1}{3}$
3) $\frac{2}{3} + \frac{5}{9}$	4) $\frac{7}{8} - \frac{1}{4}$
5) $\frac{2}{5} \times \frac{3}{4}$	6) $\frac{7}{10} \div \frac{1}{2}$
7) $\frac{3}{4} + \frac{2}{5}$	8) $\frac{9}{10} - \frac{2}{3}$
9) $\frac{2}{3} \times 6$	10) $5 \times \frac{3}{8}$

11) $\frac{4}{9} \div 2$	12) $\frac{5}{12} + \frac{1}{6}$
13) $\frac{7}{8} - \frac{5}{16}$	14) $\frac{3}{10} + \frac{4}{5}$
15) $\frac{9}{11} - \frac{2}{11}$	16) $\frac{1}{2} \times \frac{2}{3} \times \frac{3}{4}$
17) $\frac{3}{5} \div \frac{9}{10}$	18) $\frac{6}{7} + \frac{5}{14}$
19) $\frac{1}{4} + \frac{3}{8} - \frac{1}{16}$	20) $\frac{9}{10} - \frac{3}{5}$

Week 3: Graphing on a Coordinate Plane and Linear Equations



Tell what point is located at each ordered pair.

- 1) $(+2, -6)$ _____ 3) $(-7, -8)$ _____ 5) $(-2, +4)$ _____ 7) $(-8, -9)$ _____
 2) $(-1, -9)$ _____ 4) $(+6, -9)$ _____ 6) $(-9, +3)$ _____ 8) $(-1, -2)$ _____

Write the ordered pair for each given point.

- 9) D _____ 11) U _____ 13) Z _____ 15) B _____
 10) I _____ 12) R _____ 14) M _____ 16) L _____

Plot the following points on the coordinate grid.

- 17) T $(-7, -6)$ 19) K $(+6, +4)$ 21) J $(-4, +1)$ 23) N $(+7, +5)$
 18) Q $(+6, -8)$ 20) A $(+1, -4)$ 22) X $(+8, +9)$ 24) W $(-9, +7)$

1) Find the slope of the line containing the two points:

a) (3, 7) and (-3, 10) **b)** (0,0) and (4, 6) **c)** (5, 1) and (-3, 1) **d)** (-4, 6) and (-4, -1)

2) Given the following table, find the slope of the line.

x	2	4	6	8
y	-1	-4	-7	-10

3) Find the slope and the y-intercept of the line $y = 6x + 5$.

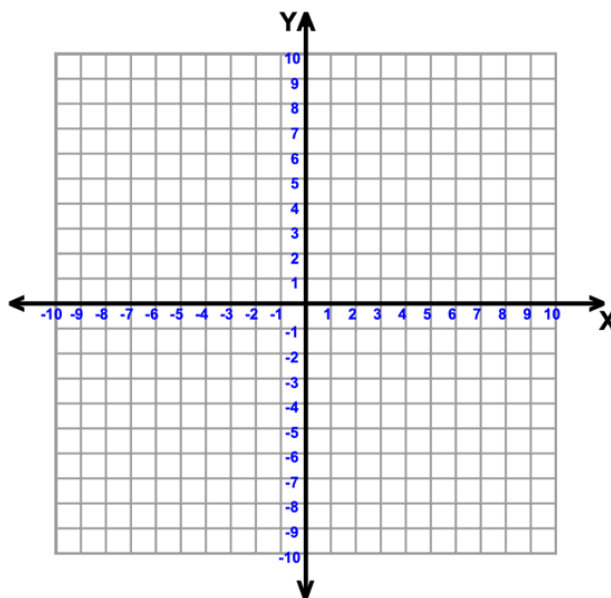
4) Write the equation of a line given the following table of values.

x	-2	-1	0	1
y	-5	-2	1	4

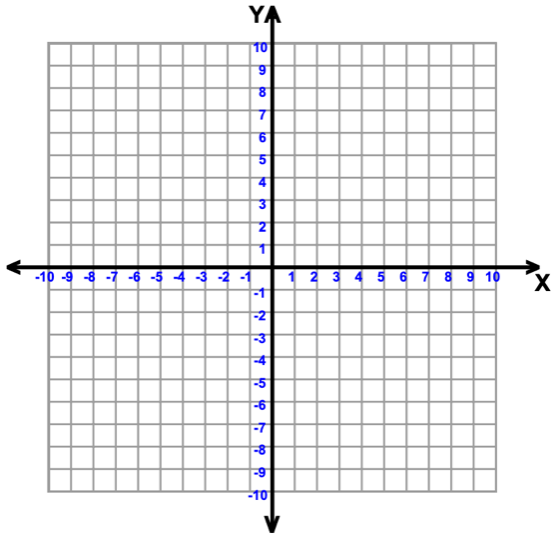
5) Write the following line in the form $y = mx + b$.

$$4x + 3y = 12$$

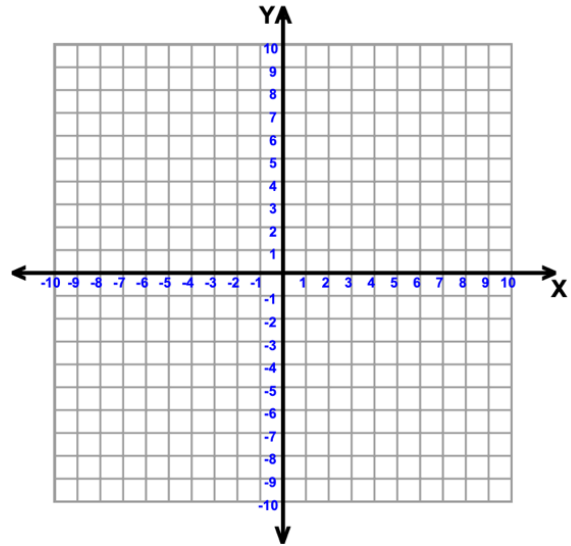
6) Graph $y = -\frac{3}{4}x + 2$.



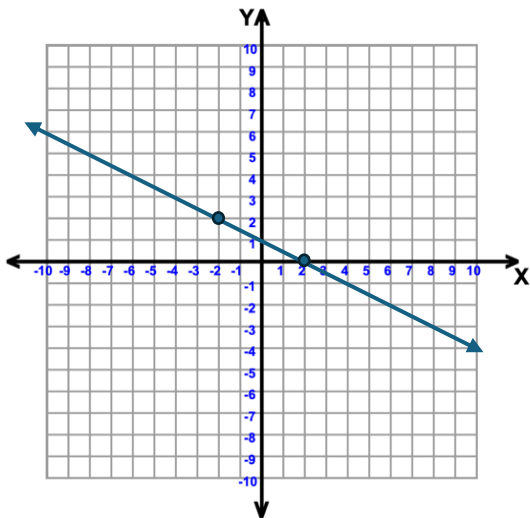
7) Graph $y = 8$. What is the slope of this line?



8) Graph $5x - 3y = 15$.



9) What is the equation of the line shown below?



10) Write the equation of a line with a slope of $\frac{3}{5}$ that passes through the point $(10, -2)$.

Week 4: Decimals — Operations NO CALCULATOR

1) $4.2 + 3.8$	2) $12.6 - 7.45$
3) $0.8 + 1.45$	4) $3.25 - 1.5$
5) 1.2×3	6) 2.4×0.5
7) $4.5 \div 1.5$	8) $6.4 \div 0.8$
9) 0.6×0.7	10) $1.25 + 2.75 - 0.5$

Week 5: Algebraic Expressions

1) $3x + 4x$	2) $5a + 2a - 3a$
3) $7y - 2y + 5$	4) $4x + 3 + 2x + 7$
5) $2m + 6 - 5m + 3$	6) $3n + 4n - n + 2$
7) $8p - 3 + 2p + 5$	8) $6a - 2b + 4a + b$
9) $9x + 3x - 4$	10) $7y + 2 - 3y + 4$

Week 6: One-Step Equations and Inequalities NO CALCULATOR

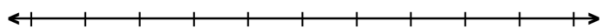
1) $x + 5 = 9$	2) $5x = 25$
3) $0.5x = 3$	4) $x - 1.25 = 3.75$
5) $-4x = 20$	6) $\frac{x}{2} = 6$
7) $\frac{x}{2} = 4.5$	8) $0.4x = 6.4$
9) $\frac{x}{5} = 8$	10) $-10x = 70$

$$11) 0.25x = 8$$

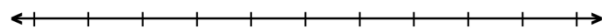
$$12) \frac{x}{8} = 0.75$$

Solve and graph the solution on the number line.

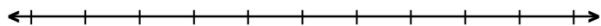
$$13) x + (-6) < 10$$



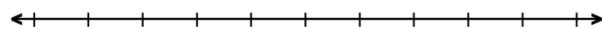
$$14) x + 3 > -9$$



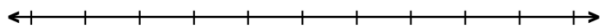
$$15) x - 0.8 \leq -1.6$$



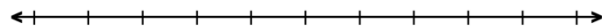
$$16) \frac{5}{6}x \geq 15$$



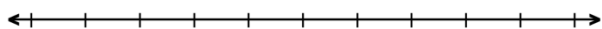
$$17) -7x < 49$$



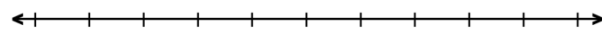
$$18) x - (-2) > 7$$



$$19) \frac{3}{4}x \leq -9$$



$$20) 2.5x \geq 7.5$$



Week 7: Ratios, Rates, and Proportions NO CALCULATOR**Solve for x .**

1) $\frac{2}{3} = \frac{x}{9}$	2) $\frac{8}{x} = \frac{4}{5}$
3) $\frac{5}{x} = \frac{10}{6}$	4) $\frac{5}{x} = \frac{15}{9}$
5) $\frac{4}{x} = \frac{12}{9}$	6) $\frac{3}{4} = \frac{x}{16}$
7) $\frac{3}{5} = \frac{6}{x}$	8) $\frac{9}{x} = \frac{6}{8}$
9) $\frac{x}{7} = \frac{6}{14}$	10) $\frac{7}{x} = \frac{14}{20}$
11) If a car travels 120 miles in 3 hours, what is its rate?	12) If 4 pencils cost \$2, how much do 10 pencils cost?
13) Write the ratio of 8 apples to 12 oranges in simplest form.	14) The ratio of boys to girls in a class is 15:20. Simplify the ratio.

Week 8: Word & Challenge Problems NO CALCULATOR

1) A number increased by 6 equals 14. Find the number.	2) Three times a number is 27. Find the number.
3) A number plus its double equals 18. Find the number.	4) A number divided by 5 equals 9. Find the number.
5) A number decreased by 3 equals 8. Find it.	6) Half a number is 7. What's the number?
7) A number times 6 equals 54. Find the number.	8) The difference between a number and 4 is 12. Find it.
9) A rectangle's length is twice its width. If the perimeter is 30, find the dimensions.	10) A train travels 60 miles in 1.5 hours. Find the speed.
11) A recipe calls for $\frac{3}{4}$ cup of sugar. You make half the recipe. How much sugar will you need?	12) A tank holds 12 gallons. If you use 3.6 gallons, what fraction remains?

<p>13) The total cost of 4 notebooks is \$7.20. What is the cost of one?</p>	<p>14) You walk 2.5 miles in 0.5 hours. Find your average speed.</p>
<p>15) The ratio of cats to dogs is 3:5. If there are 15 dogs, how many cats are there?</p>	<p>16) $8x + 3 = 27$. Find $x + 8$.</p>