

The following skills are recommended, self-guided, SUMMER WORK resources for all students scheduled to take **Math 7**. Please plan to spend some quality time this summer practicing these skills. We recommend you pace yourself and do not leave it all until the last week. Having your multiplication facts memorized is a **MUST** prior to the start of the school year and extra practice with fractions can't hurt!

Below is the list of recommended Khan Academy tutorials, the second page are the skills students should be proficient in by the first day of school. There will be an assessment of this material the first week of school.

<https://www.khanacademy.org>

click **COURSES** (upper left corner)

click **MATH**, scroll down, and click **6th Grade**

Student should complete the following categories/skills:

1. Ratios, rates, and percentages – the following skills only
 - a. Intro to ratios
 - b. Equivalent ratios
 - c. Intro to rates
 - d. Intro to percents
 - e. Percent, decimal, and fraction conversions
 - f. Percent problems
1. Arithmetic Operations (all skills) - **KNOW YOUR MULTIPLICATION FACTS!**
2. Negative Numbers (all skills)
3. Properties of Numbers (all skills)
4. Variables and Expressions Introduction
 - a. Parts of Algebraic Expressions
 - b. Substitution and evaluating expressions
 - c. Writing algebraic expressions introduction
5. Equations and Inequalities Introduction
 - a. Algebraic equation basics
 - b. One-step addition and subtraction equations
 - c. One-step multiplication and division equations
 - d. Finding mistakes in one-step equations

Student SUPPLIES NEEDED FOR Math 7 2024-25: please see the supplies list for rising 7th graders.

“An investment in knowledge always pays the best interest.”

-Benjamin Franklin

Directions: Choose the best answer. Write your answer on the blank provided.

Divisor	Exponent	Quotient	Product	Factors	Addends
Sum	Difference	Subtractor	Final	Dividend	Solvent

- The answer to a multiplication problem is the _____.
- The answer to an addition problem is the _____.
- The answer to a subtraction problem is the _____.
- The answer to a division problem is the _____.

5. Round 10.374 to the tenths place. 5. _____

In the power 4^3 , label the base and the exponent.

Base = _____

Exponent = _____

6. 7. _____

7 Write $6 \times 6 \times 6 \times 6 \times 6$ using exponents

- A. 5^6 B. 6^5 C. 30 D. 7,776

8 Solve. 3^4 8. _____

- A. 18 B. $4 \times 4 \times 4$ C. 12 D. 81

9 Which integer represents a **LOSS** of 5 yards? 9. _____

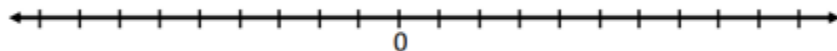
- A. 5 B. -5 C. 0 D. -0

10 Which integer represents **NO** gain or loss? 10. _____

- A. 5 B. -5 C. 0 D. -0

11 Graph each point by placing a **SOLID DOT** on the number line. Label each point with the correct number.

5, -2, 1, -6, 0



12 Write this set of numbers in **DESCENDING** order: 3, -10, 4, 8, -8, 0 12. _____

For questions 13 – 15, compare each set of numbers with <, >, =

13. $2 \bigcirc -49$

14. $-43 \bigcirc -3$

15. $-10 \bigcirc 10$

Use the number line shown to answer questions 16 & 17



16. Which point has the largest absolute value? 16. _____

17. Which two points have the same absolute value? 17. _____

For questions 18 – 23: solve each expression, WATCH your signs!

18. $-10 + (-5)$ _____ 19. -8×3 _____

20. -4×-5 _____ 21. $0 + (-7)$ _____

22. $-14 - 4$ _____ 23. $-18 \div 3$ _____

24. Which operation should be performed first in the following expression? 24. _____

$$25 \div 5 + 6 \times 3 - 2$$

A. $25 \div 5$

B. $5 + 6$

C. 6×3

D. $3 - 2$

25. Solve the following expression using PEMDAS: $25 \div 5 + 3^2 \times (4 - 2)$ 25. _____



For questions 26 & 27, use the image shown (write answers in simplest form):

26. Write the ratio of shaded shapes to unshaded shapes: Use 3 notations: _____; _____; _____

27. What shape represents a ratio of 2:1? (draw the shape(s)) 27. _____

28. Are 5:10 and 10:15 equivalent? YES NO (circle one) Show your work to PROVE it!

29. If 3 hats cost \$17.04, how much would 1 hat cost? 29. _____

30. Circle all the PRIME numbers: 3 8 9 11 12

31. Find the GCF and LCM of 6 and 8 GCF: _____ LCM: _____

32. Solve $12.5 + 7$ 32. _____

For questions 33 – 36, solve each equation shown, **SHOW ALL WORK!**

33. $54 = x - 9$

34. $17 + x = -2$

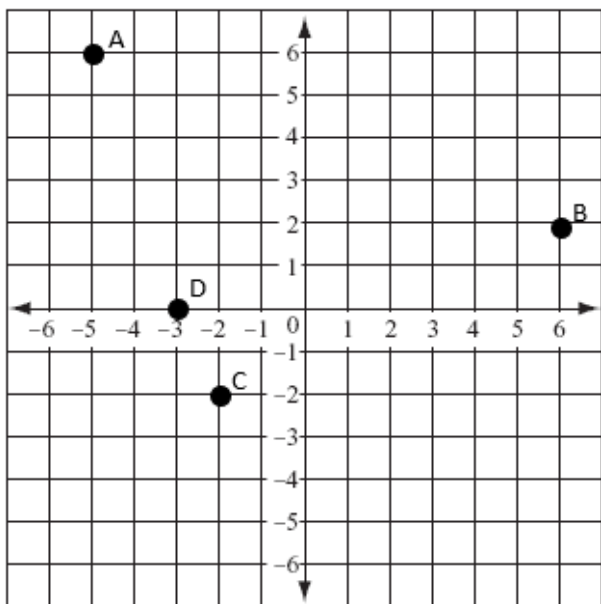
35. $28 = -2x$

36. $\frac{x}{5} = 11$

For questions 37-44, use the coordinate plane to answer each question.

37. On the coordinate plane label: the **x-axis**, the **y-axis**, the **origin**

38. On the coordinate plane label all **4 QUADRANTS**. Use the following numbers (I, II, III, IV)



Directions: Fill in the missing parts of the table below. Plot points E and F on the coordinate plane to help you fill in that part of the table.

	Point	Ordered Pair	Quadrant
39	A		
40	B		
41	C		
42	D		
43	E	<u>(0 , 4)</u>	
44	F	<u>(5 , - 3)</u>	

45. What is the coefficient of **p** in the following expression?

45. _____

$$4m - 12 + p + 13n$$