

June 2026

Dear Future Eighth Grade Students,

Attached you will find the Summer Math Packet and IXL Math assignments that I have prepared to help you to maintain important skills throughout the summer. These problems review concepts that you learned during seventh grade.

The best way to utilize this packet is to do some problems each week. If you do all of the pages during the first week or the last week of the summer, you are not making wise use of this material. Mathematical skills, just like sport skills need constant practice in order to be maintained and expanded.

In addition to the problems in the is packet, there is a list of 8 required IXL math assignments.

The packet and IXL assignments will be collected on Wednesday, September 2, 2026. This will count as a test grade during the first trimester.

Basic Directions:

- ✓ No Calculators
- ✓ All work must be done neatly and in pencil on the pages provided. **DO NOT ATTACH ADDITIONAL PAPER.**
- ✓ If your work is incomplete or illegible it will be returned to you to be redone.
- ✓ You may refer to your notes from this year, if you have forgotten how to do these problems.
- ✓ If you need my assistance, ask your parents to email me at (mthorley@bethlehemschool.org) and we can set up a time to meet at school.
- ✓ **If your Summer Homework is not completed satisfactorily and on time, you will lose points (5 points per day).**

You are also required to make perfect square flash cards. **The list of the perfect squares up to 400** are included on the last page of this packet. Expect timed tests on these facts throughout the school year beginning in September. Use 3 x 5 index cards. Put ther Number on one side and its square on the other. If you practice these 3 times each week, you will know them in September. **You will be expected to bring your flashcards to school in September.**

Excellence in Education is achieved when we all work together. Have a great summer

Enjoy,
Mrs. Maureen Thorley

8th Grade IXL Summer Math Practice

Each student entering into 8th grade for the 2026-2027 school year is to log onto IXL and complete the eight Math skills by Wednesday, 9/2/2026. These are a review of 7th grade skills. Type in the “topic code” and attain a smart score of 100. This will count towards a grade for the 2026-2027 school year.

NO CALCULATORS

Topic Code	Topic Name
B8A	Add, subtract, multiply, or divide integers
7YN	Evaluate numerical expressions involving integers
FNM	Evaluate numerical expressions involving decimals
XXQ	Evaluate numerical expressions involving fractions
D7P	Evaluate numerical expressions involving exponents
ZHY	Evaluate nonlinear expressions
WB7	Solve Proportion Problems
67F	Solve Percent Equations

Compute. Remember to use Order of operations

-Parentheses

-Exponents

- Multiplications and divisions going from left to right

-Additions and subtractions going from left to right

1.) $(16 + 28 \cdot 4^2) + -95$ 2.) $(-87 \cdot 2^3) - (53 - 27)$ 1.) _____

2.) _____

3.) $-1 + 3^2 \cdot -4^3 \cdot 7$ 4.) $(22 - 5^2) + (1^3 + 3^0)$

3.) _____

4.) _____

$$5.) -20 + -80 + (-4 \bullet -97) \quad 6.) -8^2 + -81 + 3^2 \bullet 6^2$$

5.) _____

6.) _____

$$7.) (-5 \bullet -7)(13 \bullet -10)$$

$$8.) (80 - 81 \bullet 3) + 5$$

7.) _____

8.) _____

9.) $(-8 \bullet 5^2 + 8) + 9$

10.) $-97 - -79 - 78 + 64$

9)_____

10.)_____

11.) $(-75 - 85) + -34 - 45$

11.)_____

12.) $17 - 8(-34 + 94)$

12)_____

13.) $(6 + -7 - 1) \bullet (8 - 16)$

14.) $-6 - 2 - 5 + 2 - 55$

13.) _____

14.) _____

15.) _____

15.) $(28 - 8) \div (-9 - -5) - 5$

16.) $(-10 + 3) \div (-8 + 7)$

16.) _____

Study this Example

$$\begin{array}{rcl} b + 75 & = & -31 \\ + -75 & = & + -75 \\ \hline b & = & -106 \end{array}$$

$$\begin{array}{rcl} -12 & = & f - 88 \\ -12 & = & f + -88 \\ +88 & = & + 88 \\ \hline 76 & = & f \end{array}$$

$$\begin{array}{rcl} -9e & = & -423 \\ -9 & & -9 \\ \hline e & = & 47 \end{array}$$

$$\begin{array}{rcl} \frac{a}{7} & = & \frac{4}{21} \\ \frac{7}{1} \cdot \frac{a}{7} & = & \frac{4}{21} \cdot \frac{7}{1} \\ a & = & \frac{4}{3} \end{array}$$

$$\begin{array}{rcl} \frac{g}{-5} & = & 32 \\ -5 \cdot \frac{g}{-5} & = & 32 \cdot -5 \\ g & = & -160 \end{array}$$

$$\begin{array}{rcl} \frac{5}{9}p & = & 85 \\ \frac{9}{5} \cdot \frac{5}{9}p & = & 85 \cdot \frac{9}{5} \\ p & = & 153 \end{array}$$

Do this Problem

$$b + 75 = -31$$

$$-12 = f - 88$$

$$-9e = -423$$

$$\frac{a}{7} = \frac{4}{21}$$

$$\frac{g}{-5} = 32$$

$$\frac{5}{9}p = 85$$

Solving One Step Equations. Show all work.

$$42 + a = 53$$

$$-15 = j - 45$$

$$20b = 140$$

$$12k = 156$$

$$\frac{d}{-12} = 11$$

$$m + 75 = -8$$

$$5g = 85$$

$$p - 94 = 21$$

Solving One Step Equations. Show all work.

$$\frac{q}{-7} = 560$$

$$w + 15 = 3$$

$$9s = 333$$

$$-67 + y = 214$$

$$42 = t - 24$$

$$205 = a + 73$$

$$55 + v = 115$$

$$8b = -56$$

Two Step Equations. Solve and show all work. You may check your answers on scrap paper. Do Not Round Any Numbers.

Study this Example

$$\begin{array}{rcl} 2a + 3 & = & -3 \\ + -3 & + -3 & \\ \hline \frac{2a}{2} & = & \frac{-6}{2} \\ a & = & -3 \end{array}$$



Do This Problem

$$2a + 3 = -3$$

$$\begin{array}{rcl} \frac{18+b}{3} & = & -5 \\ 3 \cdot \left(\frac{18+b}{3} \right) & = & -5(3) \\ 18 + b & = & -15 \\ + -18 & + -18 & \\ \hline b & = & -33 \end{array}$$



$$\frac{18+b}{3} = -5$$

$$\begin{array}{rcl} \frac{c}{7} + \frac{1}{4} & = & \frac{5}{6} \\ \frac{c}{7} + \frac{1}{4} & = & \frac{5}{6} \quad \frac{10}{12} \\ + -\frac{1}{4} & + -\frac{1}{4} & \frac{-3}{12} \\ \hline \end{array}$$



$$\frac{c}{7} + \frac{1}{4} = \frac{5}{6}$$

$$\begin{array}{rcl} 7 \cdot \frac{c}{7} & = & \frac{7}{12} \cdot 7 \\ c & = & \frac{49}{12} \end{array}$$

Now Do These Problems

$$\frac{-9d}{8} + 3 = 7$$

$$\frac{j+9}{3} = 8$$

$$6 = \frac{e}{4} + 2$$

$$2k + 10 = -2$$

$$-4 = \frac{g}{20} - 5$$

$$-9m + 1 = -80$$

$$12 = 16 + \frac{h}{5}$$

$$-1 = \frac{n}{2} - 10$$

$$-2 = 2 + \frac{p}{4}$$

$$-1 = \frac{v+5}{-16}$$

$$-15 = -4r + 5$$

$$-10 = 10x - 90$$

$$10 - 6s = -104$$

$$9 + 9z = 9$$

$$-9u - 13 = -103$$

$$8 + \frac{b}{-4} = 5$$

Do This Problem

$$-2(6a - 3) = 90$$

$$\underline{\quad\quad\quad + -6 \quad + -6 \quad\quad\quad}$$

$$\underline{-12a} = \underline{84}$$

-12 -12

$$a = -7$$

$$72 = 3(4b + 4)$$

$$-56 = 4(g - 8)$$

$$2(4c + 2) = 44$$

$$-46 = -2(5j - 7)$$

$$76 = 2(6f + 2)$$

$$5(k - 4) = -10$$

Study this Example

$$-4a + 6(a + 2) = 36$$

$$-4a + 6a + 12 = 36$$

$$2a + 12 = 36$$

$$\underline{+-12 + -12}$$

$$\underline{2a} = \underline{24}$$

$$\underline{2} = \underline{2}$$

$$a = 12$$



Do This Problem

$$-4a + 6(a + 2) = 36$$

Now Do These Problems

$$28 = -5c + 3(3c - 4)$$

$$5f - 4(f - 2) = 14$$

$$-3d + 5(d + 2) = -2$$

$$6g + 4(g + 3) = 2$$

$$-46 = -3e - 7(e - 2)$$

$$16 = 2(4j + 3) - 6j$$

Solve each proportion. Show All Work. DO NOT Round any answers. Remember Cross product.

1.) $\frac{4}{5} = \frac{a}{10}$

$$4 \cdot 10 = 5a$$

$$\frac{40}{5} = \frac{5a}{5}$$

$$8 = a$$

2.) $\frac{5}{6} = \frac{20}{c}$

1.) 8

2.) _____

3.) $\frac{6}{9} = \frac{24}{d}$

4.) $\frac{16}{20} = \frac{12}{f}$

3.) _____

4.) _____

5.) $\frac{25}{60} = \frac{g}{12}$

6.) $\frac{27}{63} = \frac{j}{7}$

5.) _____

6.) _____

$$7.) \frac{4}{4.4} = \frac{6}{k}$$

$$8.) \frac{2}{3} = \frac{80}{n}$$

7.) _____

8.) 75

$$\begin{aligned} \frac{2}{3}n &= \frac{5}{8} \cdot \frac{80}{1} \\ \frac{2}{3}n &= 50 \\ n &= 75 \end{aligned}$$

$$9.) \frac{\frac{4}{5}}{\frac{3}{10}} = \frac{8}{p}$$

$$10.) \frac{\frac{6}{7}}{r} = \frac{9}{14}$$

9.) _____

10.) _____

$$11.) \frac{27}{63} = \frac{s}{7}$$

11.) _____

$$12.) \frac{21}{u} = \frac{49}{35}$$

12.) _____

$$13.) \frac{0.1}{0.5} = \frac{.26}{v}$$

13.) _____

$$14.) \frac{.9}{.8} = \frac{.18}{x}$$

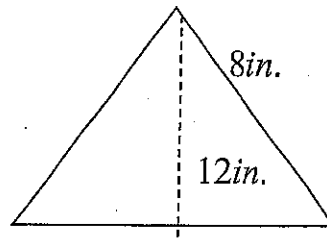
14.) _____

The Formula Card in your binder will be helpful when doing many of these problems.

1) How many feet are in 3 miles?

1.) _____

2) Find the area of the triangle.



2.) _____

3) $29.45 \div 0.05$

3.) _____

4) What is 25% of 84?

4.) _____

5) How many quarts are in 9 gallons?

5.) _____

6) 20% of what number is 16?

6.) _____

7) $8 - 4\frac{4}{9}$

7.) _____

8) Jamie will take her son to summer camp and pick him up 2 weeks later. If camp is 5 hours away, how many hours will Jamie travel?

8.) _____

9) What percent of 30 is 5?

9.) _____

10) $0.65 - 0.2987$

10.) _____

11) $4,591,065 + 9,886,547$

11.) _____

12) $12\frac{1}{2}\%$ of what number is 11?

12.) _____

13) 0.009×0.06

13.) _____

14) What percent of 27 is 3?

14.) _____

15) List the factors of 20.

15.) _____

16) Put these integers in decreasing order.

-41 23 -62 -10 30

16.) _____

Name _____

Grade 8

17) Mr. Harris had 20 more new clients than Mr. Roberts did last year. If Mr. Roberts had 75 new clients last year, how many new clients did Mr. Harris have last year?

17.) _____

18) $\frac{9}{11} \bigcirc \frac{7}{9}$ ($<$, $>$, or $=$)

18.) $\frac{9}{11} \bigcirc \frac{7}{9}$

19) $33\frac{1}{3}\%$ of 45 is what number?

19.) _____

20) $1\frac{1}{3} \div 2\frac{2}{3}$

20.) _____

21) $78 + (-56)$

21.) _____

29) $7,000,000 - 864,375$

35) 29.) _____

30) What percent of 40 is 5?

30.) _____

31) Mark rode 20 km in 2 hours. If he continues at this pace, how long will it take him to ride 120 km?

31.) _____

32) $10 - 3\frac{3}{4}$

32.) _____

33) $0.7 - 0.1981$

33.) _____

34) List the Factors of 30

34.) _____

Name _____

Grade 8

$$1^2 = 1$$

$$2^2 = 4$$

$$3^2 = 9$$

$$4^2 = 16$$

$$5^2 = 25$$

$$6^2 = 36$$

$$7^2 = 49$$

$$8^2 = 64$$

$$9^2 = 81$$

$$10^2 = 100$$

$$11^2 = 121$$

$$12^2 = 144$$

$$13^2 = 169$$

$$14^2 = 196$$

$$15^2 = 225$$

$$16^2 = 256$$

$$17^2 = 289$$

$$18^2 = 324$$

$$19^2 = 361$$

$$20^2 = 400$$

$$\sqrt{1} = 1$$

$$\sqrt{4} = 2$$

$$\sqrt{9} = 3$$

$$\sqrt{16} = 4$$

$$\sqrt{25} = 5$$

$$\sqrt{36} = 6$$

$$\sqrt{49} = 7$$

$$\sqrt{64} = 8$$

$$\sqrt{81} = 9$$

$$\sqrt{100} = 10$$

$$\sqrt{121} = 11$$

$$\sqrt{144} = 12$$

$$\sqrt{169} = 13$$

$$\sqrt{196} = 14$$

$$\sqrt{225} = 15$$

$$\sqrt{256} = 16$$

$$\sqrt{289} = 17$$

$$\sqrt{324} = 18$$

$$\sqrt{361} = 19$$

$$\sqrt{400} = 20$$