

THE CATHOLIC ACADEMY
OF STAMFORD

June 2026

Dear Catholic Academy of Stamford Rising 8th Grade Math Students,

Congratulations on finishing another successful year! In order to be prepared for your 8th grade math class, you are being asked to complete the attached math packet. *Unless you register within the last two weeks of summer, you are responsible for completing the entire packet before the new school year begins at the end of August.*

Please read the directions carefully and make sure that all parts are completed. You will be receiving a grade (in regards to completeness and accuracy) for this assignment. **Please use a pencil and show your work.** Challenge yourself and do not use a calculator. This packet is due to Mrs. M on the first day of math class. Please note that if this math work is not submitted on time, a late penalty will be deducted from the grade.

Parents are asked to verify that their child completed this summer work by signing at the bottom of this letter.

In addition to the packet, 8th graders, you should also work on your IReady math path. The site is [clever.com/in/diobpt](https://www.clever.com/in/diobpt), then click on the IReady icon. You should try to do 15 minutes a week of IReady work. (The site shuts down in August to prepare for the next school year.)

Thank you.

Mrs. Mysogland

Parent Signature _____ Date _____

RATIONAL NUMBER OPERATIONS

QUICK CHECK

Name _____

Fill answers in the given grids.

1. A size 8 kids shoe measures $9\frac{2}{3}$ inches. If 5 pairs of size 8 kids shoes are lined end to end, then how many inches will they cover?

- A. $36\frac{2}{3}$ B. $48\frac{1}{3}$ C. $77\frac{1}{3}$ D. 62

2. The record low temperature in Fargo, ND is -37°F . The record high is 109°F . What is the difference in the record high and the record low temperatures?

- F. 72
G. 109
H. 33
J. 146

3. The local volleyball team hosts a concession stand to raise money. They can spend \$120 to purchase popcorn, candy, and drinks. They purchase 95 bags of popcorn at \$0.75 each and 35 bags of candy at \$1.20 each. How much money does the volleyball team have left to spend on drinks?

- A. \$7.25 B. \$15.50 C. \$6.75 D. \$20.25

4. Mrs. Sloan is purchasing 3.4 pounds of trail mix that costs \$4.25 per pound. How much change will Mrs. Sloan receive if she gives the cashier \$20.00

- F. \$14.45 H. \$5.55
G. \$12.55 J. \$7.45

5. There are 36 people in a fitness studio. What fraction of the people are running?

- $\frac{3}{8}$ of the people lifted weights
- $\frac{1}{3}$ of the people did cross training
- the remaining people were running

A. $\frac{7}{24}$

B. $\frac{17}{24}$

C. $\frac{5}{12}$

D. $\frac{7}{8}$

1.	(A)	(B)	(C)	(D)				
2.	(F)	(G)	(H)	(J)				
3.	(A)	(B)	(C)	(D)				
4.	(F)	(G)	(H)	(J)				
5.	(A)	(B)	(C)	(D)				
6.	(F)	(G)	(H)	(J)				
7.	(A)	(B)	(C)	(D)				
8.	(F)	(G)	(H)	(J)				
9.	(A)	(B)	(C)	(D)				
10. Use the grid below.								
⊕	⓪	⓪	⓪	⓪			⓪	⓪
⊖	①	①	①	①			①	①
	②	②	②	②			②	②
	③	③	③	③			③	③
	④	④	④	④			④	④
	⑤	⑤	⑤	⑤			⑤	⑤
	⑥	⑥	⑥	⑥			⑥	⑥
	⑦	⑦	⑦	⑦			⑦	⑦
	⑧	⑧	⑧	⑧			⑧	⑧
	⑨	⑨	⑨	⑨			⑨	⑨

6. The weather report shows the 5 day forecast in St. Paul, Minnesota. What is the sum of the various temperatures over the period of five days?

DAY	TEMPERATURE (°F)
MONDAY	-6°
TUESDAY	3°
WEDNESDAY	4°
THURSDAY	-2°
FRIDAY	-1°

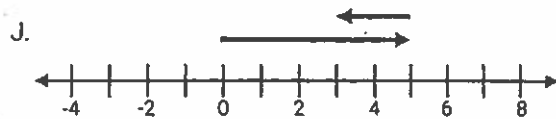
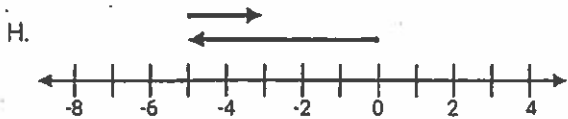
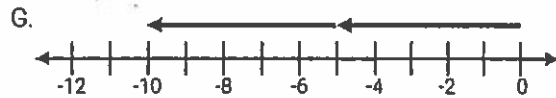
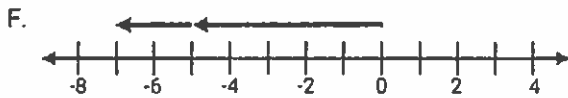
- F. -4°
- G. 2°
- H. -3°
- J. -2°

7. A 9 pound bag of sugar is being split into containers that hold $\frac{2}{3}$ of a pound. How many containers of sugar will the 9 pound bag create?

- A. $13\frac{1}{2}$
- B. $15\frac{1}{3}$
- C. $13\frac{1}{3}$
- D. 27

8. Which diagram correctly depicts the expression below?

$$-5 - 2$$



9. A spool of ribbon has 18 feet on it. Pieces measuring 8 inches will be cut from the spool of ribbon. How many 8 inch segments will be cut from the spool of ribbon?

- A. 10
- B. 27
- C. 2.25
- D. 14.8

10. The parent teacher association is raising money for a new swing set. They need \$682.56 to purchase the swing set and receive a \$200.00 donation. The remaining amount will be equally divided among 8 different student groups to raise. How much money will each student group need to raise in order to purchase the swing set? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

Name _____

Date _____

Solving Addition and Subtraction Equation

1. $x + ^{-}3 = ^{-}18$

11. $^{-}8.6 = m + 11.12$

2. $c - 11 = 43$

12. $a - \frac{1}{5} = \frac{3}{20}$

3. $12 + y = 32$

13. $-\frac{3}{4} + z = \frac{7}{18}$

4. $^{-}26 = d - 7$

14. $b - 17.8 = ^{-}36$

5. $^{-}62 = a + 16$

15. $-\frac{13}{24} = -\frac{5}{16} + c$

6. $q - ^{-}83 = 121$

16. $102.8 = g - ^{-}66.09$

7. $t + ^{-}101 = 263$

17. $f + \frac{3}{5} = \frac{3}{4}$

8. $w - 454 = ^{-}832$

18. $b - \frac{5}{6} = -\frac{7}{8}$

9. $^{-}332 = ^{-}129 + s$

19. $21.21 + p = ^{-}101.6$

10. $665 = k - ^{-}327$

20. $^{-}762.46 = h - 32.061$

Order of Operations with Fractions

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$\left(\frac{3}{5} - \frac{1}{6}\right) \div \left(-\frac{1}{3}\right)$$

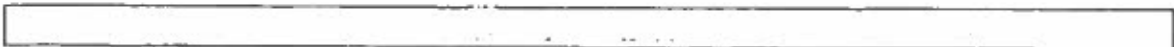
$$\left(\left(-\frac{1}{3}\right) + \frac{5}{8}\right) \div \frac{8}{9}$$

$$\left(\left(-\frac{1}{6}\right) - \left(-\frac{5}{8}\right)\right) \times \frac{1}{2}$$

$$\left(-\frac{1}{2}\right) - \left(-\frac{1}{5}\right)^2$$

$$\left(-\frac{2}{9}\right) \times \left(\left(-\frac{5}{9}\right) + \frac{5}{6}\right)$$

$$\left(-\frac{1}{8}\right) \times \left(-\frac{2}{3}\right) + \frac{5}{6}$$



Order of Operations with Decimals

Name: _____

Date: _____

Simplify each expression using the correct order of operations.

$$1.6 \times (1.7 + 2.5)$$

$$5.9 - (1.4)^2$$

$$7.5 + (7.2)^2$$

$$9.4 \times (5.4 - 1.8)$$

$$6.2 + (6.4)^2$$

$$5.5 \div (2.5)^2$$

$$6.6 \times 4.3 + 7.6$$

$$(4.8)^2 - 2.5$$

$$(3.75 + 7.8) \times 4.8$$

$$1.4 + (7.8)^2$$

RATES AND PERCENTS

QUICK CHECK

Name _____

1. Todd plans to swim 18 laps in the pool. Each lap is 50 yards. So far Todd has swam 738 yards. What percentage of the total has Todd completed?

- A. 18%
- B. 82%
- C. 62%
- D. 77%

2. Jameson is seeking a loan with a simple interest rate of 3% per year. If he wants to borrow \$8,000, then how much will he be charged in interest after 4 years?

- F. \$1,280.00
- G. \$960.00
- H. \$240.00
- J. \$9,600.00

$$I = p \cdot r \cdot t$$

money *interest* *time*
loaned *rate*
 in
 decimal
 form

3. A hot air balloon travels 18 miles in 3 hours. At this rate how many miles will the hot air balloon travel in $\frac{3}{4}$ hour?

- A. 4.5
- B. 6
- C. 11.5
- D. 13.5

4. The price of a tablet was increased from \$180 to \$207. By what percentage was the price of the table increased?

$$\frac{\text{change}}{\text{original}} \times 100$$

- F. 33%
- G. 8%
- H. 27%
- J. 15%

5. Margie has a \$50.00 budget to purchase a \$45.00 pair of boots. If there is an 8% sales tax rate, then how much under budget will Margie be?

- A. \$8.60
- B. \$5.00
- C. \$1.40
- D. \$4.20

1.	(A)	(B)	(C)	(D)					
2.	(F)	(G)	(H)	(J)					
3.	(A)	(B)	(C)	(D)					
4.	(F)	(G)	(H)	(J)					
5.	(A)	(B)	(C)	(D)					
6.	(F)	(G)	(H)	(J)					
7.	(A)	(B)	(C)	(D)					
8.	(F)	(G)	(H)	(J)					
9.	(A)	(B)	(C)	(D)					
10. Use the grid below.									
+	0	0	0	0				0	0
-	1	1	1	1				1	1
	2	2	2	2				2	2
	3	3	3	3				3	3
	4	4	4	4				4	4
	5	5	5	5				5	5
	6	6	6	6				6	6
	7	7	7	7				7	7
	8	8	8	8				8	8
	9	9	9	9				9	9

6. Edgar pays \$67.86 for 7.8 pounds of fertilizer. What is the price per pound of fertilizer?

- F. \$6.98
- H. \$5.65
- G. \$8.70
- J. \$10.26

7. Mr. Mathewson increased the amount of weight he lifted each morning from 80 pounds to 90 pounds. By what percentage did Mr. Mathewson increase the amount of weight he lifted?

- A. 12.5%
- B. 10%
- C. 15%
- D. 18.5%

$$\frac{\text{change}}{\text{original}} \times 100$$

8. Margo missed 24.6% of the free throw shots in a season. During the season she took a total of 90 free throw shots. Which of the following is the best estimate of the number of free throw shots Margo missed?

- F. 18
- G. 12
- H. 22
- J. 25

9. A hospital bill is estimated to be \$462.00. It ends up actually costing the patient \$525.00. What is the percent of error in the bill?

- A. 7%
- B. 15%
- C. 9%
- D. 12%

$$\frac{\text{difference}}{\text{actual}} \times 100$$

10. Jameson pays \$39.90 for 3.8 pounds of almonds. What is the price per pound of almonds? Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

DATA AND STATISTICS

QUICK CHECK

Name _____

1. Below is data collected from a random sample of 80 students regarding their fitness habits. If the entire school has 600 students, then what is a reasonable estimate for the number of students who consider themselves to have an average fitness habit?

FITNESS	POOR	AVERAGE	EXCELLENT
STUDENTS	16	44	20

- A. 175 B. 120 C. 280 D. 330

1.	(A)	(B)	(C)	(D)
2.	(F)	(G)	(H)	(J)
3.	(A)	(B)	(C)	(D)
4.	(F)	(G)	(H)	(J)
5.	(A)	(B)	(C)	(D)
6.	(F)	(G)	(H)	(J)
7.	(A)	(B)	(C)	(D)
8.	(F)	(G)	(H)	(J)

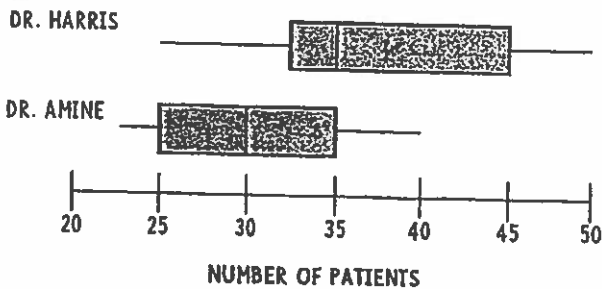
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2. The number of teachers from two different schools are shown below. The school district would like to survey staff members about the school dress code. Based on the data, which of the samples below would be considered random?

	6 th GRADE TEACHERS	7 th GRADE TEACHERS	8 th GRADE TEACHERS
NORTH MS	16	14	19
WEST MS	11	10	12

- F. All of the teachers at North MS are sampled.
 G. The seventh grade teachers at North MS and West MS are sampled.
 H. The teachers are alphabetized by last name and every fifth teacher is sampled.
 J. The teachers who attend the school board meeting are sampled.

3. The number of patients at a doctors office is tracked over a period of 10 days. Which statement best supports the data?



- A. The data for Dr. Amine's office is more symmetrical than the data for Dr. Harris's office.
 B. The interquartile range of the two offices is the same.
 C. The median number of patients at Dr. Harris's office is less than the median number of patients at Dr. Amine's office.
 D. The range of the data for Dr. Harris's office is less than the range of the data for Dr. Amine's office.