Welcome to Middle School at St. Joseph School!

Dear Students and Guardians

Welcome back to middle school all of our seventh and eighth grade students. We welcome the sixth grade students to our team. To simplify things, the middle school teachers are requiring the same materials for 6th, 7th, and 8th grade students. The list includes everything you will need for your homeroom as well as all other classes. Here is what you need to bring on the first day of school.

- 2 boxes of tissues for classroom use
- 1 roll of paper towels for classroom use
- 2 Clorox wipes containers for classroom use
- headphones/earbuds for in school Chromebook– must be left in school (an extra pair in case one breaks is optional)
- You can bring your own chromebook to school – please see Miss Serio to get it set up on the first day of school
- One package of blue or black pens
- One package of red pens for making corrections
- One package of pencils for Math
- Glue sticks (2 or 3)
- Scissors
- Correction tape (no liquid white out as it is messy)
- A one inch binder for writing and literature
- Package of tab dividers for binder
- One inch binder for Math (separate from writing binder)
- Post it notes for literature
- A box or zippered container to hold school supplies
- A box of colored pencils

*Composition notebooks will need to be provided by the school office. *

<u>Mandatory for 7th and 8th grade students</u>
Purchase a Texas Instruments (TI84) calculator. Stores run sales periodically, so look for special pricing.

Dear Parents,

Students in Middle school are asked to purchase a Daily Planner book and Scholastic magazines for the year. The cost for both is $20.00. (If paying by check make it out to St. Joseph School) Please bring in payment the first day of school. Teachers will send home planners when payment is received.

Thank you

Middle School Teachers

Enjoy the summer break, but remember not to wait until the last minute to complete the assignments. If you have any questions, please email us. Thank you

6th grade homeroom – Mrs. Laferriere for middle school Science and World Language and 6th grade Social Studies

laferriere@stjosephbristol.org

7th grade homeroom – Miss Serio for middle school Language Arts and Literature and 7th grade History and Religion

serio@stjosephbristol.org

8th grade homeroom – Mr. Houle for middle school Math and 8th grade History and Religion

houle@stjosephbristol.org

Middle School Summer Reading Book Report Assignment

Directions: You are to choose ONE book from the Nutmeg Book Award Nominee lists (Middle school lists for grades 7 & 8 or Intermediate 4-6 for Grade 6)or the ALSC Summer Reading List for Grades 6-8. After reading, complete ONE of the questions below. Your question must be one FULL page (that means top to bottom of page) typed in MLA format. Be sure to type the question you are responding to beneath the heading.

1. What important lesson does your character learn in the story? Use examples from the story to support your answer.
2. If you wanted to describe how the main character changed in the story, choose the event that was most important. Describe the event and explain why it changed the character.
3. Think about what this story says about people in general. In what ways does it remind you of people you have read about? Support your answer with evidence from the story.
4. Choose the part of the story that you think was most important. Use information from the story to support your answer.
5. What will your character probably do next? Why do you think so? Use information from the story to support your answer.
6. Write an entry that could have appeared in your character's journal.
7. Which part of the story was most interesting or surprising? Use information from the story to support your answer.
8. Would you recommend this book to anyone? Why or why not? Discuss the character, the main conflict or how it is or isn't resolved or how realistic the character seems in his or her quest to resolve the conflict or how the author revealed the theme through the character and his or her problem. Is this how you would have handled the problem the character has? Why or why not? These are the reasons why we do or do not like books.

Middle School Summer Reading Options

Novels read must be on the student's reading level. They must be chapter books. No graphic novels will be accepted.

Below are suggested books, however if there is one you would rather read please email me the title and author so that I can make sure it is at an appropriate level.

- Percy Jackson Series - Rick Riordan
- Any books from Rick Riordan series
- Bomb - Steve Sheinkin
- The Boy Who Harnessed the Wind - William Kamkwanba
- Code Girls - Liza Mundy
- Echo - Pam Munoz Ryan
- Grenade - Alan Gratz
- Freedom Riders - Ann Bausum
- Through my Eyes - Ruby Bridges
- Hunger Games series - Suzzane Collins
- Chinese Cinderella - Adeline Yen Mah
- Words in the Dust - Trent Reedy
- Hoot - Carl Hiaasen
- Tangerine - Edward Bloor
- All-American Girl - Meg Cabot
- The Storm Runner - J.C. Cervantes
- Words on Fire - Jennifer Nielsen
- The Crossover - Alexander Kwame
- Wishtree - Katherine Applegate
- A Wrinkle in Time - Madeline L'Engle
- Because of Mr. Terupt - Rob Buyea
- Almost Home - Joan Bauer
- Freedom Walkers - Russell Freedman
- Harry Potter Series - J.K. Rowling
- Lord of the Rings series - J.R.R. Tolkien
- Hidden Figures - Young Readers Edition - Margot Lee Shetterly
- In the Shadows of the Sun - Anne Sibley O'Brien
- Restart - Gordon Korman
- Refuge - Alan Gratz
- The Dreamer - Pam Munoz Ryan
- On the Horizon - Lois Lowry
- Nazi Hunters -Neal Bascomb
- Resistance - Jennifer Neilsen

Summer Math Packet

Grade 8

Dear parents and students,
Welcome to algebra. I look forward to seeing you all in the fall. This upcoming year will be challenging. If you have any questions I will be available to assist. It is important that you do your best to be in class each and every day. If you miss the math concept of the day, chances are you will find it difficult to stay on track. Take copious notes and if by chance you do miss the lesson, make sure to get the notes/examples from a friend. Please be advised that there will be homework (30 to 40 minutes) each night during the week.

I would like to inform parents that additional homework assignments will require the use of a chromebook/computer.

This math packet is to be completed by the beginning of the upcoming school year and will be counted as a quiz grade worth 20%. Students who do not pass in the assignment will result in a 50. <u>All</u> students should continue to practice their multiplication facts up to 12.

Have a great summer!

Mr. Houle

Name _____ Class _____ Date _____

Quarter 1 Test • Form A
Chapters 1–3

Circle the letter of the best answer.

1. What is the opposite of $|-3|$?
   A. -3 **B.** 0
   C. 3 **D.** $\frac{1}{3}$

2. Evaluate $8y - 3$, for $y = -2$.
   F. 13 **G.** -19
   H. 3 **J.** -13

3. Which property does the equation $(6 - 4)3 = 6 \cdot 3 - 4 \cdot 3$ illustrate?
   A. commutative property of multiplication
   B. associative property of multiplication
   C. distributive property
   D. associative property of addition

4. Simplify $4a + 5(2c - a)$.
   F. $3a + 10c$ **G.** $-a + 10c$
   H. $9a + 10c$ **J.** $-a + 5c$

5. Which equation has a solution of -3?
   A. $2b - 4 = 2$ **B.** $-b - 4 = -1$
   C. $4 + (-b) = 1$ **D.** $2b - 1 = 5$

6. Solve the equation $84 = -4t$.
   F. $t = -504$ **G.** $t = -12$
   H. $t = -14$ **J.** $t = -21$

7. Round 13.4256 to the nearest tenth.
   A. 13.4 **B.** 13.5
   C. 13.43 **D.** 10

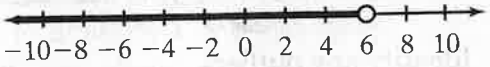
8. Estimate $4.789 + 3.002 + 9.117$.
   F. 17 **G.** 21
   H. 37 **J.** 16

9. Estimate $73.41 \div 26.005$.
   A. 0.3 **B.** 30
   C. 3 **D.** 0.03

10. Where does the point $(-5, -8)$ lie?
    F. Quadrant I **G.** Quadrant II
    H. Quadrant III **J.** Quadrant IV

11. What is the variable expression for *two more than three times a number?*
    A. $2n + 3$ **B.** $(n + 3) + 2$
    C. $2(n + 3)$ **D.** $3n + 2$

12. The graph shows the solutions to which inequality?



    F. $x > 6$ **G.** $x \leq 6$
    H. $x < 6$ **J.** $x \geq 6$

13. How far can a plane fly in 3.5 h at a speed of 595 mi/h? Use $d = rt$.
    A. 2,082.5 mi **B.** 170 mi
    C. 4,165 mi **D.** 1,700 mi

14. A bottle holds 0.5 L of juice. How many milliliters is that?
    F. 0.0005 mL **G.** 50 mL
    H. 5,000 mL **J.** 500 mL

15. Which set has numbers in order from least to greatest?
    A. $|-10|, -7, 2, 6$
    B. $4, -|-3|, |-6|, -1$
    C. $-8, -|-4|, 0, |-9|$
    D. $-5, |-1|, -12, 3$

16. Simplify $\frac{5 + 2(9 - 4)}{3}$.

_____

Name _____ Class _____ Date _____

Quarter 1 Test, Chapters 1–3 • Form A (continued)

Solve each equation or inequality.

17. $x - 9 \leq 6$ _____

18. $-3x \geq 33$ _____

19. $y + 7.4 = 3.4$ _____

20. $n \div -4.2 = -16.8$ _____

For Exercises 21–24, use the data in the table.

21. Find the mean. _____

22. Find the median. _____

23. Find the mode. _____

24. Identify any outliers. _____

Maurice's Times in 100-meter Freestyle Swim	
Meet Number	**Time (s)**
1	52.2
2	51.8
3	58.4
4	52.7
5	52.2

25. The temperature was 15° below zero when it rose 7 degrees. Use an integer to describe the new temperature. _____

26. Write a rule for the pattern below. Find the next two numbers in the pattern.

12, 9, 6, 3, _____, _____

_____

27. You want a two-dip ice cream cone with two different flavors of ice cream. How many different combinations can you choose if the ice cream store has:

a. 4 flavors of ice cream? _____

b. 12 flavors of ice cream? _____

c. 20 flavors of ice cream? _____

28. Explain how to use the distributive property to find 64($1.02) mentally.

_____

29. Write a word problem that could be solved with the equation $c + 1.02 = 13.48$.

_____

_____

_____

Name _____ Class _____ Date _____

Quarter 2 Test • Form A
Chapters 4–6

Circle the letter of the best answer.

1. Which of the following is the best estimate of $3\frac{3}{4} + 2\frac{1}{5}$?
   A. 4 **B.** 5
   C. 6 **D.** 7

2. Evaluate the expression $a^2 + b^2$, for $a = -2$ and $b = -3$.
   F. 25 **G.** 13
   H. -13 **J.** -25

3. Write 3,400,000 in scientific notation.
   A. 3.4×10^4 **B.** 34×10^5
   C. 3.4×10^6 **D.** 3.4×10^5

4. State the prime factorization of 84.
   F. $2 \cdot 42$ **G.** $2^2 \cdot 3 \cdot 7$
   H. $4 \cdot 3 \cdot 7$ **J.** $2 \cdot 3 \cdot 7$

5. Find the GCF of 18 and 32.
   A. 8 **B.** 4
   C. 2 **D.** 6

6. Find the LCM of $15a^3b^2$ and $18ab^4$.
   F. $3ab^2$ **G.** $90ab^2$
   H. $90a^3b^4$ **J.** $3a^3b^4$

7. $1\frac{2}{5} \cdot \frac{2}{3} =$
   A. $\frac{14}{15}$ **B.** $1\frac{4}{15}$
   C. $1\frac{1}{8}$ **D.** $2\frac{1}{10}$

8. Solve $7 = y - 2\frac{3}{7}$.
   F. $y = 9\frac{3}{7}$ **G.** $y = 4\frac{4}{7}$
   H. $y = \frac{17}{39}$ **J.** $y = 4\frac{2}{7}$

9. Find the probability that a spinner with numbers 1 to 10 lands on a number greater than 6 when spun.
   A. $\frac{3}{10}$ **B.** $\frac{1}{2}$
   C. $\frac{3}{5}$ **D.** $\frac{2}{5}$

10. Which of the following is *not* true?
    F. $\frac{5}{8} = 62.5\%$ **G.** $35\% = \frac{7}{20}$
    H. $\frac{9}{2} = 4.5$ **J.** $0.05\% = 5$

11. Which of following is *not* true?
    A. $\frac{7}{9} > 77\%$
    B. $4.38 \times 10^{-3} > 2.65 \times 10^{-2}$
    C. 15 oz $<$ 1 lb
    D. $\frac{4}{7} < \frac{4}{5}$

Simplify.

12. $6(8 - 6)^3$

    _____

13. $\frac{(x^3 \cdot y^4)^2}{x^5 y^4}$

    _____

14. $\frac{35mn}{14m}$

    _____

Name _____ Class _____ Date _____

Quarter 2 Test, Chapters 4–6 • Form A (continued)

15. Multiply $(2.7 \times 10^{-5})(3.1 \times 10^{-4})$. Write your answer in scientific notation. _____

16. State whether 285,432 is divisible by 2, 3, 5, 9, or 10. _____

17. List all factors of 40. _____

18. Evaluate $\frac{a + b}{3b}$, for $a = -2$ and $b = 5$. _____

19. Write $0.\overline{18}$ as a fraction in simplest form. _____

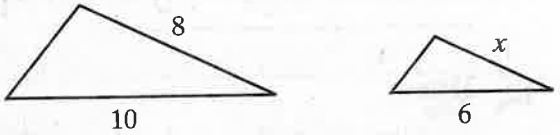
20. Complete: 10 qt = _____gal

21. Write as a unit rate:
An airplane travels 2,250 km in 3 h. _____

22. 35% of k is 7. What is k? _____

23. Find the percent of change from 40 to 45. _____

24. The figures are similar. Find the value of x. _____



25. In a scale drawing of a house, the dining room is 0.75 in. long. The actual length of the dining room is 24 ft. The living room is 32 ft long. Find the length of the living room on the drawing. _____

26. A store bought frozen pizzas for $3 and marked them up 45%. What is the selling price of the pizzas? _____

27. There are 12 seats in the front row of a theatre. Each row has 4 more seats than the row in front of it. How many seats are there in the first 8 rows? _____

28. Explain why $(x^3)^2 = x^6$.

_____

Name _____ Class _____ Date _____

Quarter 3 Test • Form B
Chapters 7–9

Circle the letter of the best answer.

1. Solve $\frac{2}{3}y + 4 = 12$.
   A. $y = 12$ **B.** $y = 5\frac{1}{3}$
   C. $y = 14$ **D.** $y = 24$

2. Solve $3 - z < -1$.
   F. $z < 4$ **G.** $z \geq 3$
   H. $z > 2$ **J.** $z > 4$

3. Solve $A = \pi r^2$, for π.
   A. $\pi = \frac{A}{r^2}$ **B.** $\pi = \frac{r^2}{A}$
   C. $\pi = Ar^2$ **D.** $\pi = \frac{A}{r}$

4. Find the simple interest on $980 deposited at an interest rate of 2.5% for 4 years.
   F. $24.50 **G.** $98.00
   H. $245.00 **J.** $101.74

5. Find the balance on $4,000 deposited at 6% compounded semi-annually for 2 years.
   A. $4,490.25 **B.** $4,480.00
   C. $4,494.40 **D.** $4,502.04

6. Which of the following relations is a function?
   F. $\{(-8, 3), (3, 5), (-8, 5)\}$
   G. $\{(-7, 2), (-7, 5), (5, 2)\}$
   H. $\{(4, 9), (9, 4), (-4, 9)\}$
   J. $\{(1, 0), (-1, 6), (-1, 10)\}$

7. The line with equation $4x - 7y = 6$ has slope
   A. $-\frac{7}{4}$ **B.** $\frac{7}{4}$
   C. $-\frac{4}{7}$ **D.** $\frac{4}{7}$

8. A number x is three times a number y. Which equation describes the two numbers?
   F. $xy = 3$ **G.** $y = 3x$
   H. $x = 3y$ **J.** $x = y + 3$

9. A circle has diameter 40 in. Find the circumference. Use 3.14 for π. Round to the nearest inch.
   A. 63 in. **B.** 126 in.
   C. 20 in. **D.** 1,256 in.

10. The length of a rectangle is 4 cm more than twice the width. The perimeter is 74 cm. Find the length.
    F. 26 cm **G.** 11 cm
    H. 52 cm **J.** 22 cm

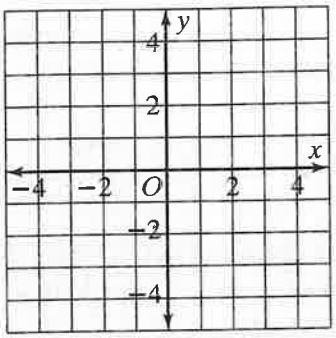
11. Which of the following must be true if $\triangle PRK \cong \triangle CNJ$?
    A. $\angle RKP \cong \angle JNC$
    B. $\overline{RK} \cong \overline{CJ}$
    C. $\overline{KP} \cong \overline{JC}$
    D. $\angle K \cong \angle N$

12. The lengths of the sides of a quadrilateral are all 7 ft. The quadrilateral could *not* be which of the following?
    F. square **G.** trapezoid
    H. rectangle **J.** rhombus

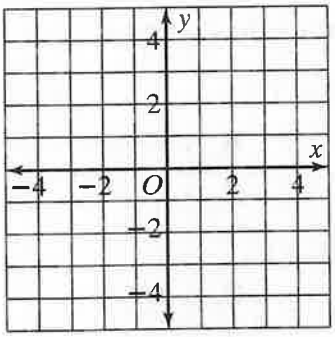
13. Which ordered pair is *not* a solution to $3x - 5y < 4$?
    A. $(2, 1)$ **B.** $(2, 3)$
    C. $(-2, 1)$ **D.** $(1, -2)$

Name _____ Class _____ Date _____

14. Graph $y = -\frac{3}{4}x + 1$.



15. Graph $y < 3x + 1$.



Use the data in the table for Exercises 16–19.

Hours Spent Weekly	
Doing Homework	Playing Video games
3	8
9	2
5	5
3	7
4	6

16. Make a (homework, video games) scatter plot.

17. Is there a *positive correlation*, a *negative correlation*, or *no correlation* between the sets of data in your scatter plot?

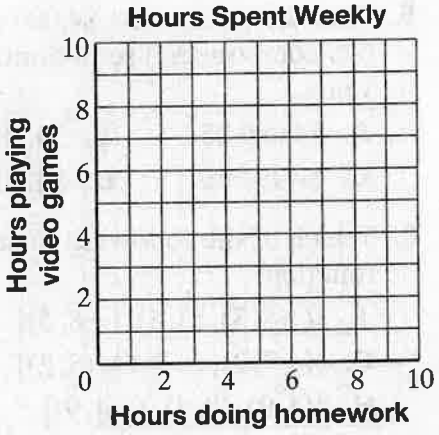
_____

18. Draw a trend line and use it to predict how many hours a student who plays video games 3 hours a week would spend doing homework.

_____

19. Write an equation for your trend line.

_____



For Exercises 20–22, find the coordinates of the image of a segment whose endpoints are $D(2, -1)$ and $K(4, 2)$ after each transformation.

20. a translation of left 5 and down 1 _____

21. a reflection over the y-axis _____

22. a rotation of 90° about the origin _____

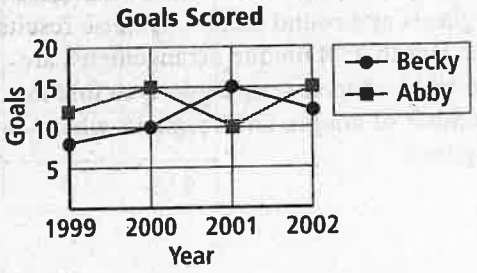
23. Are the coordinates of the image of a point under a translation a function of the coordinates of the original point? Explain.

_____

Name _____ Class _____ Date _____

Beginning-of-Course Diagnostic Test

1. The line graph shows the number of goals scored each year by Becky and Abby over their high school soccer careers. In which year did Becky and Abby together score the most goals?

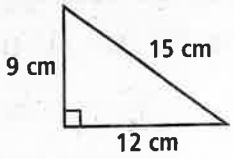


2. Estimate the sum of \$14.30, \$143.08, and \$19.74 by rounding.

3. Divide $\frac{2}{5} \div \frac{1}{8}$. Write the answer in simplest form.

4. Paul, Steve, Robin, and Ryan all play different instruments. Their instruments are guitar, bass guitar, piano, and drums. Robin's instrument is not a string instrument. Paul does not play bass guitar or piano. Ryan's instrument has only four strings. Which instrument does each play?

5. Find the perimeter.



6. Write five equivalent fractions for $\frac{7}{8}$.

7. Find three consecutive even integers whose sum is 180.

8. Use a factor tree to write the prime factorization of 430.

9. Write 3.04 as a percent.

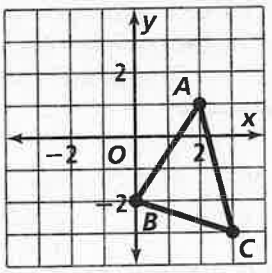
10. This week Lera withdrew \$150 from her checking account. She wrote a check for \$275, made a deposit of \$200, and then wrote another check for \$75. She now has \$185 in her account. How much did Lera have in her account at the beginning of the week?

11. Find the GCF of 15 and 27.

12. Write 3.1818 . . . as a fraction in simplest form.

13. Find a four digit number that is divisible by 3, 5, and 8.

14. Graph the image of $\triangle ABC$ after a translation of 3 units left and 2 units up.



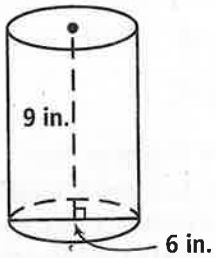
15. Subtract $6\frac{3}{4} - 4\frac{11}{12}$. Write the answer in simplest form.

16. Troy is writing a book of short stories. It is his goal to write one short story this month, two short stories next month, three short stories the following month, and so on for 13 more months. How many stories will he have written at the end of sixteen months?

Name _____ Class _____ Date _____

Beginning-of-Course Diagnostic Test (continued)

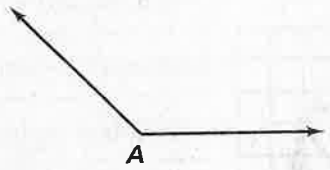
17. Find the volume of the following figure.



18. Find the LCM of 15 and 27.

19. Graph the triangle with vertices $A(-1, 3)$, $B(-3, -2)$, $C(0, -1)$. Then graph its image after a reflection over the y-axis.

20. Use a protractor to measure the angle and classify it as *acute, right, obtuse,* or *straight.*



21. Multiply $4\frac{2}{3} \cdot 5\frac{1}{6}$. Write the answer in simplest form.

22. Draw a line plot for the frequency table.

Number	8	9	10	11	12
Frequency	3	4	6	2	1

23. When seating guests at a round table, two arrangements are considered the same if each person has the same neighbor to the left and to the right in each arrangement. Find the number of unique arrangements when seating 2, 3, and 4 guests at a round table. Use these results and the fact that 24 unique arrangements are possible when seating 5 guests to find the number of unique arrangements when seating 6 guests.

24. Write 3624 in expanded form using exponents.

25. There are 20 guests at a party. If each person shakes hands with every other person exactly once, how many total handshakes will occur?

26. Below are the number of hours Grace spent reading during each week of her summer vacation. Make a box-and-whisker plot. Determine the median and mean number of hours Grace spent reading each week.

14 11 18 10 15 14 20 12 13 10 17

27. Write $6^2 \cdot 3^3$ in standard form.