

Entering 7th Grade Summer Book Report



Please read all instructions before beginning.

1. Choose two books, not an entire series from the list below. * You must choose books that you have never read before.
2. Before reading your chosen summer books, read through the questions on the back of this paper. Choose 2 specific questions to answer in addition to your summary paragraph and general response paragraph.
3. While reading, keep notes that you can pull from later when writing your answers to each question.
4. After reading, type out your book evaluations and make sure it adheres to all format requirements specified below. When you return to school in the fall, you will log onto your English class's page in Google Classroom to submit the final report, AS WELL as give me a printed copy. Plan to submit your paper during the first week of school.

List of 7th grade books

- The Percy Jackson Series (or any of the other Rick Riordan series)*
- The Inheritance Series (Eragon)*
- The Fablehaven Series*
- The Series of Unfortunate Events*
- The Wrinkle in Time Series
- The Kane Chronicles
- The Alcatraz Series*
- The Landon Snow Series*
- The Artemis Fowl Series*
- The Chronicles of Narnia*
- White Fang by Jack London

- The Jungle Book by Rudyard Kipling
- The Secret Garden by Frances Burnett
- A Wrinkle in Time by Madeleine L'Engle

General Paper Guidelines

- 12 pt. professional font
 - Double spaced
 - 1" margins
 - Title of book .5" from top margin (and properly italicized)
 - Name in top right hand corner
 - Indent each paragraph
- *Each paragraph should take approx. 1/2 page, meaning that your book report should be no shorter than two pages and no longer than three full pages.

List of Response Questions (choose two)

1. Setting: "In what ways does the setting help develop the story and characters?"
2. Character: "How does the author develop the differences of certain characters, especially his main character?" "In what ways (specific thoughts, words, actions, etc.) does the author show you the development and change in his main characters?"
3. Plot: "How does the plot keep you on the edge of your seat and wanting more?"
4. Conflict: "What is the primary conflict (problem) and was it powerful enough to earn an entire book being written about it?"
5. Audience appeal: "How does the author tell his story so that it appeals to (interests, pleases, stirs up) the audience?"

Paragraph Format

Paragraph 1: Summary of the book - Talk about the main people and events in the book but do NOT include your opinions.

Paragraphs 2-3: Chosen response questions (from above) - I should know by the topic sentence which question each paragraph is answering. - Paragraphs that use specific examples will receive better grades than paragraphs that generalize.

Paragraph 4: General personal opinion of the book - Talk about the things you like about this book and the things you dislike about it. Make sure to explain why you like or dislike these things



Our Lady of the Snows Catholic Academy

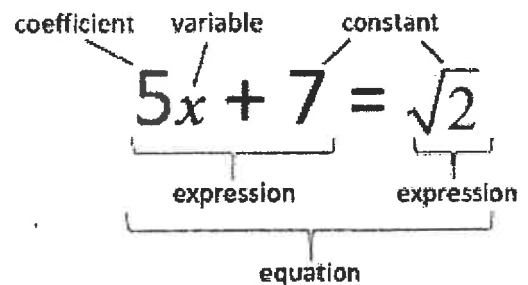
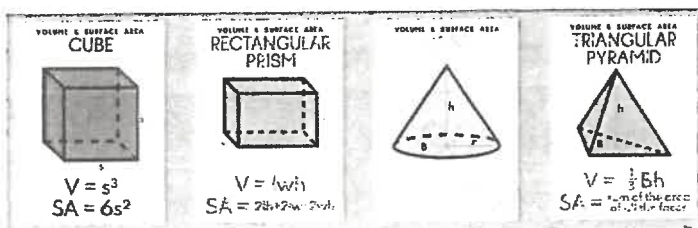
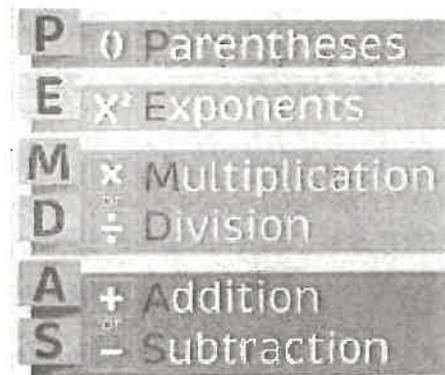
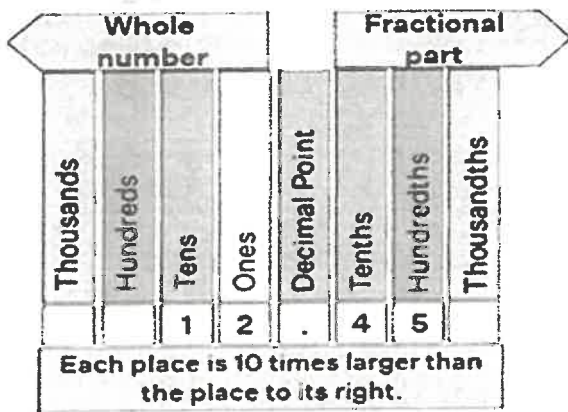
"Turning today's learners into tomorrow's leaders"

Entering 7th Grade September 2023



Hello and Happy Summer!

This is our Summer Math Packet! There is a review page before each set of questions. Please complete this packet a little at a time while you are enjoying your summer. It will help keep your mathematical skills sharp and ready for 7th grade. This packet must be completed and handed in to your 7th Grade Math teacher the first week of school. You're going to do great!



Terms: $5x, 7, \sqrt{2}$

Adding & Subtracting Decimals

1. Write the problem vertically, lining up the decimal points.
2. Add additional zeroes at the end, if necessary, to make the numbers have the same number of decimal places.
3. Add/subtract as if the numbers are whole numbers
4. Bring the decimal point straight down

ex: $14.2 - 7.934$

$$\begin{array}{r} 14.200 \\ - 7.934 \\ \hline 6.266 \end{array}$$

Multiplying Decimals

1. Write the problem vertically with the numbers lined up to the right. The decimal points do NOT need to be lined up.
2. Ignore the decimals and multiply as if the numbers are whole numbers.
3. Count the total number of decimal places in the factors and put a decimal point in the product so that it has that same number of decimal places.

ex: 6.94×7.8

$$\begin{array}{r} 6.94 \rightarrow 2 \text{ decimal places} \\ \times 7.8 \rightarrow 1 \text{ decimal place} \\ \hline 5552 \\ 48580 \\ \hline 54132 \end{array}$$

3 decimal places

54.132

Dividing Decimals

1. Write the dividend under the long division symbol and the divisor to the left of it.
2. Move the decimal point in the divisor after the number to turn it into a whole number and then move the decimal in the dividend the same number of places. Then bring it up.
3. Divide as if the numbers are both whole numbers.
4. Annex zeros in the dividend as needed until there is no remainder. If your answer is a repeating decimal, write the answer using bar notation.

ex: $25.3 \div 0.3$

$$\begin{array}{r} 84.\bar{3} \\ 0.3 \overline{) 25.30} \\ \underline{-24} \\ 13 \\ \underline{-12} \\ 10 \\ \underline{-9} \\ 1 \end{array}$$

Order of Operations

1. Grouping Symbols (parentheses, brackets, etc.)
2. Exponents
3. Multiplication & Division (left to right)
4. Addition & Subtraction (left to right)

ex: $5 + 4(3 - 1.2)$

$$5 + 4(1.8)$$

$$5 + 7.2$$

$$\boxed{12.2}$$

Evaluate each expression.

1. $5.983 + 2.99$	2. $224 - 56.73$	3. $6.12 - 4.923$
4. $24.5 \cdot 3.2$	5. $0.23 \cdot 7$	6. $3.86 \cdot 9.15$
7. $14.8 \div 5$	8. $46.3 \div 1.5$	9. $147 \div 2.25$
10. $24.33 - 2.5 \cdot 7$	11. $3.9 + 4.5^2$	12. $9.25(18.4 - 2 \cdot 1.2)$

Solve each word problem, showing all work.

13. Jeff had \$46.18 in his wallet Monday morning. He gave half of his money to his brother. He then bought two donuts for \$0.75 each and a cup of coffee for \$2.99. How much money did Jeff have left?	14. Five friends split a \$65.20 bill at a restaurant. They also each left \$2.75 for the tip. How much money did each person pay in all?
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Adding Fractions & Mixed Numbers

1. Find a common denominator for the two fractions.
2. Add the two numerators and keep the denominator the same.
3. Add the whole numbers.
4. Simplify the answer and/or change improper fraction answers to mixed numbers.

$$\text{ex: } 3\frac{3}{4} + 2\frac{1}{2}$$

$$\begin{array}{r} 3\frac{3}{4} = 3\frac{3}{4} \\ + 2\frac{1}{2} = 2\frac{2}{4} \\ \hline 5\frac{5}{4} = \boxed{6\frac{1}{4}} \end{array}$$

Subtracting Fractions & Mixed Numbers

1. Find a common denominator for the two fractions.
2. Subtract the two numerators and keep the denominators the same.
If the top numerator is smaller than the bottom numerator, borrow from the whole number and rename the top fraction.
3. Subtract the whole numbers.
4. Simplify the answer.

$$\text{ex: } 5\frac{1}{4} - 1\frac{2}{3}$$

$$\begin{array}{r} 5\frac{1}{4} = 5\frac{3}{12} = 4\frac{15}{12} \\ - 1\frac{2}{3} = 1\frac{8}{12} = 1\frac{8}{12} \\ \hline \boxed{3\frac{7}{12}} \end{array}$$

Multiplying Fractions & Mixed Numbers

1. Turn any mixed numbers and whole numbers into improper fractions.
2. Cross-simplify if possible.
3. Multiply the numerators and then multiply the denominators
4. Simplify the answer and/or change improper fraction answers to mixed numbers.

$$\text{ex: } 2\frac{1}{6} \cdot \frac{4}{7}$$

$$\frac{13}{\cancel{3}6} \cdot \frac{\cancel{4}^2}{7} = \frac{26}{21} = \boxed{1\frac{5}{21}}$$

Dividing Fractions & Mixed Numbers

1. Turn any mixed numbers and whole numbers into improper fractions.
2. Keep the first fraction the same, change the division to multiplication, and flip the second fraction to its reciprocal.
3. Multiply the fractions.
4. Simplify the answer and/or change improper fraction answers to mixed numbers.

$$\text{ex: } 7 \div 1\frac{3}{4}$$

$$\begin{array}{r} 7 \\ \hline 1 \end{array} \div \frac{7}{4} \quad \downarrow$$
$$\frac{7}{1} \cdot \frac{4}{\cancel{7}} = \frac{4}{1} = \boxed{4}$$

Evaluate each expression.

15. $\frac{4}{5} + \frac{3}{4}$	16. $4\frac{2}{7} + 2\frac{9}{14}$	17. $8\frac{11}{12} + 9\frac{5}{18}$
18. $6 - \frac{3}{8}$	19. $8\frac{3}{5} - 2\frac{1}{3}$	20. $4\frac{1}{6} - \frac{8}{9}$
21. $\frac{4}{25} \cdot \frac{15}{16}$	22. $2\frac{3}{4} \cdot 8$	23. $6\frac{5}{8} \cdot 3\frac{1}{2}$
24. $\frac{7}{9} \div \frac{2}{3}$	25. $\frac{4}{5} \div 10$	26. $5\frac{2}{3} \div 2\frac{5}{6}$

Solve each word problem, showing all work.

27. Jaimie ran $3\frac{1}{2}$ miles on Monday. She ran half as far on Tuesday as she did on Monday. How far did Jaimie run in all on Monday and Tuesday?

28. A $5\frac{1}{2}$ quart pot is filled $\frac{2}{3}$ of the way with water. How many more quarts of water can the pot hold?

Ratios

Ratios are comparisons of two quantities.
There are 3 different ways to write ratios:

- Fraction $\left(\frac{A}{B}\right)$
- Colon (A:B)
- Word Form (A to B)

ex: write the ratio of triangles to circles
in 3 ways: $\blacktriangle \blacktriangle \blacktriangle \blacktriangle \circ \circ$

$$\frac{4}{2} = \boxed{\frac{2}{1}, 2:1, 2 \text{ to } 1}$$

Ratios can be simplified just like fractions.

Rates & Unit Rates

Rates are ratios that compare quantities measured in different units.
A unit rate is a rate with a denominator of 1.

ex: express as a unit rate:
125 miles in 4 hours

To convert a rate to a unit rate:

1. Divide the numerator by the denominator
2. Either write your answer as a fraction with a label for the both the numerator and denominator OR as one number labeled with the first unit "per" the second unit

$$\frac{125 \text{ mi}}{4 \text{ hr}} \quad 125 \div 4 = 31.25$$

$$\boxed{\frac{31.25 \text{ mi}}{1 \text{ hr}}} \text{ or } 31.25 \text{ miles per hr}$$

Fractions, Decimals, & Percent

To convert a:

- Decimal to Percent: move the decimal point 2 places to the right
- Percent to Decimal: move the decimal point 2 places to the left
- Decimal to Fraction: write the decimal over the place value of the last digit and then simplify
- Fraction to Decimal: divide the numerator by the denominator
- Percent to Fraction: write the percent over 100 and then simplify
- Fraction to Percent: convert the fraction to a decimal and then convert the decimal to a percent

ex: $0.345 = \boxed{34.5\%}$

ex: $7\% = \boxed{0.07}$

ex: $0.008 = \frac{8}{1000} = \boxed{\frac{1}{125}}$

ex: $\frac{1}{5} = 5 \overline{)1.0} = \boxed{0.2}$

ex: $45\% = \frac{45}{100} = \boxed{\frac{9}{20}}$

ex: $\frac{3}{10} = 0.3 = \boxed{30\%}$

Percent of a Number

1. Turn the percent to a fraction or decimal.
2. Multiply the fraction/decimal by the number.

ex: Find 18% of 40

$$0.18 \cdot 40 = \boxed{7.2}$$

Write each ratio in 3 ways.

29. A bank contains 15 pennies and 12 nickels. Write the ratio of nickels to pennies.

30. A bowl contains 6 apples and some bananas. If there are a total of 10 pieces of fruit, find the ratio of apples to bananas.

Convert each rate to a unit rate.

31. \$4.25 for 64 fluid ounces

32. 297 miles on 11 gallons of gas

33. 124 feet in 10 seconds

Complete the chart by converting each number to a percent, fraction, and/or decimal.

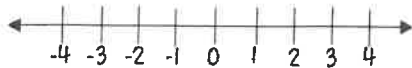
	Fraction	Decimal	Percent
34.	$\frac{3}{8}$		
35.		0.45	
36.			72%
37.		0.1	
38.	$\frac{3}{200}$		

Find each percent of a number.

39. 30% of 90	40. 15% of 38	41. 50% of 86
42. 75% of 160	43. 24% of 35	44. 2% of 74

Comparing Integers

Integers are numbers without fractional parts. They can be positive, negative, or zero. The further right a number is on the number line, the greater it is.



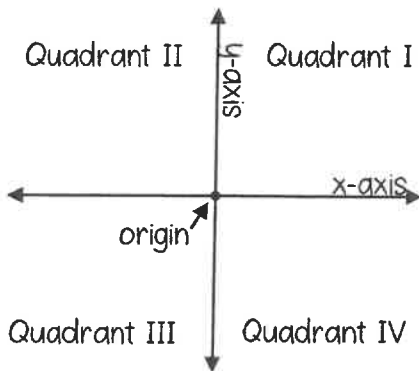
The absolute value of a number is the distance the number is from zero.

ex: compare with $<$, $>$, or $=$

-7 \bigcirc $|-9|$ \leftarrow The absolute value of $-9 = 9$

-7 $\boxed{<}$ 9

The Coordinate Plane

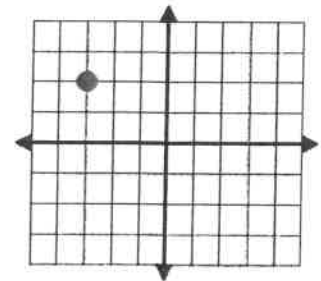


Ordered Pair: (x, y)

To graph a point on the coordinate plane, start at the origin. The first number in the ordered pair (the x-coordinate) tells you how far left (if negative) or right (if positive) to move. The second number (the y-coordinate) tells you how far up (if positive) or down (if negative) to move.

ex: Graph the point $(-3, 2)$ and state the quadrant in which it is located.

Start at the origin, and move LEFT 3 and UP 2



Quadrant II

Perimeter, Area and Volume

- Perimeter of Any Polygon: add all side lengths

- Area of a Rectangle: $A = lw$

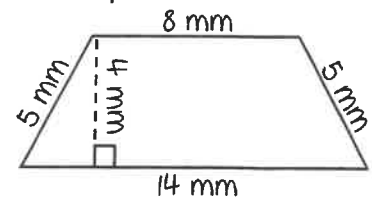
- Area of Parallelogram: $A = bh$

- Area of Triangle: $A = \frac{1}{2}bh$

- Area of Trapezoid: $A = \frac{1}{2}h(b_1 + b_2)$

- Volume of Rectangular Prism: $V = lwh$

ex: Find the perimeter & area:



Perimeter: $P = 5 + 8 + 5 + 14 = \boxed{32 \text{ mm}}$

Area: This is a trapezoid, so use the area of a trapezoid

formula: $A = \frac{1}{2}h(b_1 + b_2)$

The bases are the sides that are parallel, and the height is perpendicular to the bases.

$\rightarrow A = \frac{1}{2}(4)(8+14) = \boxed{44 \text{ mm}^2}$

Compare the integers with $<$, $>$, or $=$.

45. $-4 \bigcirc -5$	46. $2 \bigcirc -2$	47. $ -5 \bigcirc 5 $	48. $-7 \bigcirc 6$	49. $-13 \bigcirc -9$
50. $ -7 \bigcirc -6$	51. $-17 \bigcirc -14$	52. $ -3 \bigcirc -2 $	53. $0 \bigcirc -6$	54. $ -4 \bigcirc 6 $

Graph and label each of the ordered pairs in the coordinate plane. Then state the quadrant or axis in/on which the point is located.

55. A(2, 4)	56. B(0, -3)	
57. C(1, -1)	58. D(3, 3)	
59. E(-4, 1)	60. F(2, 0)	
61. G(-3, -2)	62. H(-2, 3)	
63. I(0, 2)	64. J(-1, -4)	

Find the perimeter, area, and/or volume of the given figure.

<p>65. Find the perimeter & area:</p>	<p>66. Find the perimeter & area:</p>	<p>67. Find the perimeter & area:</p>
<p>68. Find the perimeter & area:</p>	<p>69. Find the area of a square with a perimeter of 45 cm</p>	<p>70. Find the volume:</p>

Evaluating Algebraic Expressions

1. Substitute the given numbers for the variables
2. Evaluate the expression using the order of operations

ex: evaluate $x + 4y$ for
 $x = 4$ & $y = 6$

$$\begin{array}{r} 4 + 4(6) \\ 4 + 24 = \boxed{28} \end{array}$$

One-Step Addition & Subtraction Equations

- Addition Equations: Subtract the number being added to the variable from both sides of the equation

$$\begin{array}{r} \text{ex: } 4 + x = 18 \\ -4 \qquad -4 \\ \hline \boxed{x = 14} \end{array}$$

- Subtraction Equations: Add the number being subtracted from the variable to both sides of the equation

$$\begin{array}{r} \text{ex: } 20 = a - 5 \\ +5 \qquad +5 \\ \hline 25 = a \rightarrow \boxed{a = 25} \end{array}$$

One-Step Multiplication & Division Equations

- Multiplication Equations: Divide both sides of the equation by the number next to the variable

$$\begin{array}{r} \text{ex: } 7b = 28 \\ \frac{7}{7} \qquad \frac{7}{7} \\ \hline \boxed{b = 4} \end{array}$$

- Division Equations: Multiply both sides of the equation by the number under the variable

$$\begin{array}{r} \text{ex: } 5 \cdot \frac{n}{5} = 10 \cdot 5 \\ \hline \boxed{n = 50} \end{array}$$

Problem Solving

1. Read the problem. Identify the question that is being asked and the key information in the problem.
2. Plan how you are going to solve the problem and estimate the answer.
3. Solve the problem using the strategy of your choice.
4. Check your answer. Make sure your answer is reasonable and compare it to your estimate. Label your answer with appropriate units.

Evaluate each expression for $a = 5$, $b = 12$, $c = 10$, & $d = 2$.

71. $2b - a$	72. $d(ab - c)$	73. $3 + \frac{b}{d}$
74. $\frac{4a}{b + 4d}$	75. $2a^2 - c$	76. $b - c + d$

Solve each one-step equation.

77. $g + 3 = 17$	78. $r - 6 = 7$	79. $6b = 18$	80. $\frac{h}{9} = 3$
81. $5 = f - 8$	82. $48 = 12b$	83. $a + 24 = 83$	84. $17 + x = 23$
85. $10 = \frac{m}{5}$	86. $86.5 = f - 7.63$	87. $\frac{n}{6} = 11$	88. $\frac{3}{4}h = 12$

Solve each word problem using the method of your choice.

89. A fencing company charges \$22 per foot to install a wood fence. How much will it cost to install a wood fence around a rectangular pool area that is 20 feet wide and 38 feet long?

90. A 6 inch-tall plant grew $\frac{3}{4}$ of an inch one week and twice as much the following week. How tall is the plant now?

91. Jack can read 45 pages of his book in one and a half hours. At that rate, how long will it take him to read the entire 300-page book?

92. Brian ordered 3 large cheese pizzas and a salad. The salad cost \$4.95. If he spent a total of \$47.60 including the \$5 tip, how much did each pizza cost? (Assume there is no tax).

93. A cookie recipe calls for $3\frac{1}{4}$ cups of flour. The recipe makes 3 dozen cookies. How much flour is needed to make 144 cookies?

94. Ella has a box of chocolate candies. She gives $\frac{1}{3}$ of the candies to her sister, 4 to her brother, and she eats the remaining 12 candies. How many chocolate candies were in the box originally?

For these examples we will be using two different sets of numbers.

Set A:

13, 10, 4, 12, 20, 14, 18

When dealing with statistics it is often easier to put the data in order (smallest to largest).

4, 10, 12, 13, 14, 18, 20

Set B:

10, 23, 2, 7, 9, 15, 7, 20

2, 7, 7, 9, 10, 15, 20, 23

Mean (aka. Average):

To find the 'Mean' of a set of numbers take the sum of all the numbers and divide it by the quantity of numbers.

$$4 + 10 + 12 + 13 + 14 + 18 + 20 = 91$$

$$91 \div 7 = 13$$

$$2 + 7 + 7 + 9 + 10 + 15 + 20 + 23 = 93$$

$$93 \div 8 = 11.6$$

Median:

The 'Median' of a set of numbers is the value that is in the center. In set A, the median is 13.

4, 10, 12, 13, 14, 18, 20



2, 7, 7, 9, 10, 15, 20, 23



Since set B has no number in the middle the median is the average of the two center numbers (9 & 10).
Set B's median is 9.5 (19 ÷ 2).

Range:

The 'Range' of a set of numbers is the difference between the largest and smallest amount.

4, 10, 12, 13, 14, 18, 20

$$20 - 4 = 16$$

2, 7, 7, 9, 10, 15, 20, 23

$$23 - 2 = 21$$

Quartiles

To find the quartiles of a set, split the set into quarters (4ths). Set B's quartiles are between numbers, so the average of the numbers is used.

4, 10, 12, 13, 14, 18, 20

Q1: 10
Q2: 13
Q3: 18

2, 7, 7, 9, 10, 15, 20, 23

Q1: $14 \div 2 = 7$
Q2: $19 \div 2 = 9.5$
Q3: $35 \div 2 = 17.5$

Interquartile Range

The 'Interquartile Range' is the difference between the first quarter and the third quarter (see above).

4, 10, 12, 13, 14, 18, 20

$$18 - 10 = 8$$

2, 7, 7, 9, 10, 15, 20, 23

$$17.5 - 7 = 10.5$$

Mean Absolute Deviation

The 'Mean Absolute Deviation' is the mean of the numbers distance from the mean.

Number	Distance from Mean (13)
4	9
10	3
12	1
13	0
14	1
18	5
20	7

Number	Distance from Mean (11.6)
2	9.6
7	4.6
7	4.6
9	2.6
10	1.6
15	3.4
20	8.4
23	11.4

$$9 + 3 + 1 + 0 + 1 + 5 + 7 = 26$$

$$26 \div 7 = 3.7$$

$$9.6 + 4.6 + 4.6 + 2.6 + 1.6 + 3.4 + 8.4 + 11.4 = 46.2$$

$$46.2 \div 8 = 5.8$$

Using the set of numbers find the mean, median, mode and range.

Answers

1) 75, 75, 79, 68, 72, 70

1. _____

2) 66, 64, 51, 51, 63

2. _____

3) 81, 80, 81, 82, 74, 83

3. _____

4) 10, 7, 12, 10, 6

4. _____

5) 59, 58, 59, 49, 63, 67

5. _____

6) 35, 34, 24, 17, 35

6. _____

7) 22, 22, 8, 22, 22, 8

7. _____

8) 88, 83, 77, 83, 79

8. _____

9) 82, 81, 83, 67, 66, 66

9. _____

0) 16, 11, 26, 21, 21

10. _____