## 5th Grade Supply List 2023

## Teacher Notes

- Please refer to the attached letter to understand how to set up the supplies
- Mechanical pencils are allowed.
- No rolling backpacks allowed.

Please also purchase the following books:

- The Lemonade War by Jacqueline Davies
- Echo by Pam Munoz Ryan
- Shades of Gray by Carolyn Reeder
- The Penderwicks: A Summer Tale about Four Sister, Two Rabbits, and a Very Interesting Boy by Jeanne Birdsall

| Quantity | Item | Class |
| :---: | :---: | :---: |
| 2 | Earphones-in a plastic bag labeled with name | Personal use |
| 1 | Ruler | Personal use |
| 2 | Composition notebooks | LA, Religion |
| 3 | 1-subject spiral notebook with front pocket | 2-Sci., 1 Span. |
| 7 | Plastic Pocket folders with brads | All |
| 3 packs | Notebook paper - wide rule | 1 personal use 2 Homeroom |
| 4 pack | Index cards - $3 \times 5$ | 2 personal use <br> 2 Homeroom |
| 4 | Glue sticks | 2 personal use <br> 2 Homeroom |
| 1 | Pair of scissors of appropriate size | Personal use |
| 1 pack | Erasable pens - blue or black ink (gel is best) | Personal use |
| 1 pack | Grading pens - Red pens (or any color besides black) | Personal use |
| 2 | Expo markers | Personal use |
| 1 | Dry Eraser | Personal use |
| 2 | Highlighters | Personal use |
| 6 | Pencils - mechanical are allowed | Personal use |
| 1 pack | Wooden pencils | Homeroom or Math |
| 1 | Large eraser (Hi-Polymer preferred) | Personal use |
| 1 box | Markers - 10 count | Personal use |
| 1 box | Colored pencils - 12 count | Personal use |
| 1 | Small Post-it notes or Flags | Personal use |
| 2 boxes | Tissues | Homeroom |
| 1 roll | Paper towels | Homeroom |
| 1 container | Disinfecting wipes | Homeroom |
| 1 | Old t-shirt for Art class (to wear over uniform) | Art |
| 1 | 1-inch Binder (BAND STUDENTS ONLY) | BAND ONLY |

## SAINT HENRY SCHOOL

## Dear Parents,

Your fifth-grade team of teachers hopes you are enjoying a blessed summer. We are looking forward to meeting your child in August. The transition to fifth grade can be challenging, but we want to assure you that we will guide each student in growing into their new responsibilities and routines. Over the course of our years as teachers, we have learned a few organizational tips that will help your student have less stress as the year begins. We are happy to share them with you.

1. Students should have 2 pencil cases packed. One should contain 3 pencils (mechanical are fine), 2 blue or black pens, 2 red pens, a highlighter, an eraser, an Expo marker, and a small pair of scissors. The second pencil case should contain art supplies such as colored pencils, markers, and 2 glue sticks. Leave any extra pencils, pens, glue sticks, and highlighters at home in a place where students can grab to replenish their school supply as needed.
2. Tuck ear buds (labeled with names) into a small zip pocket of the backpack. Keep an extra set in your pencil pouch in case you lose the first set.
3. Our supply list asked you to purchase 7 plastic folders with brads. Please preload loose-leaf paper (about 20 pieces) on the brads and label the folders in the upper right-hand corner with your child's name. We've found it helps students to have a different color for each subject. Please send an additional pack of looseleaf to school.
4. We are asking each student to bring 2 composition notebooks. Please label one with your child's name and LA Notebook and the other with child's name and Religion.
5. Please do not send tissues, paper towels, or disinfecting wipes on the first day of school. Rather, send them a little each day, only as much as your student can comfortably carry.
6. One the first day of school, bring the summer reading book The Penderwicks: A Summer Tale of Four Sisters, Two Rabbits, and a Very Interesting Boy. Please put your child's name on it. Keep The Lemonade War, Shades of Gray, and Echo at home. We will let you know when they are needed.
7. Please have the Summer Math Packet complete and ready to turn in on the first day of school. If you have shown work on separate paper, please attached.

Thank you for your support in getting your student off to an organized and confident start to fifth grade.
Sincerely,
Mrs. Welsh, Mrs. Emerson, and Sister Maria

SAINT HENRY SCHOOL Educating for life in Christ

Dear Fifth Grade Parents,

Summer is here.... let the good times begin! We all enjoy a break from school and schedules. Summer always seems to fly by, and we are back to school before we know it.

In a school-wide effort to maintain skills over the summer, we are providing a math packet. Our hope is that the children work on the packet a little each week to retain learned skills and seek extra help as needed. Please bring the completed packet to school on the first day.

Of course, students are encouraged to read all summer. This is a wonderful time to learn and enjoy book genres of high interest to them. Each student is required to read two books: one of their choice and one listed below. For the book of choice, students should choose an Accelerated Reader book within their reading level that is at least $\mathbf{2 5 , 0 0 0}$ words in length. You can find a book's level at https://www.arbookfind.com/default.aspx. Simply type in the title, and once the book appears on the list, click on the title for key details such as level and word count. Upon return to school, students will take an AR test on this book. Short books will not count for this AR grade so be sure to check the word count. The second book is a reading requirement. It is The Penderwicks: A Summer Tale of Four Sisters, Two Rabbits, and a Very Interesting Boy by Jeanne Birdsall. Please have your student bring their copy to school on the first day, we will work with the book during the first few weeks, and they will need their own copy.

We are confident your children will benefit from the extra practice and look forward to their return in August. Until then, thank you for your continued support of your children and our school. We know parents are our student's primary teachers and we could not be successful without your help.

Lastly, we also hope that this summer provides a much-needed quality family life in the downtime from school. We also encourage you to participate frequently in the Sacraments of the Eucharist and Penance, a place where your son and daughter can meet often with Jesus and grow in His love, grace, and mercy.

Know of our prayers for each family and we look forward to teaching your children next year.

Blessings,

Sister Maria, Mrs. Emerson, and Mrs. Welsh

Ms. S. Elder

## Objectives: ( 10 of 25 listed)

1. Read a 6-digit whole number
2. Determine the word form of a 6-digit whole number
3. Represent a 6 -digit whole number in expanded form using powers of ten
4. Add a 5-digit or greater whole number and a 3-digit or greater whole number
5. Subtract a 3-digit or greater whole number from a 5 -digit or greater whole number
6. WP: Estimate the sum or difference of two whole numbers, all values less than $1,000,000$
7. Multiply a 3- or 4-digit whole number by a 1-digit whole number
8. Multiply a 2-digit whole number by a 2-digit whole number
9. WP: Multiply a 2-digit whole number by a 2-digit whole number
10. Divide a 3-digit whole number by a 1-digit whole number with no remainder in the quotient
11. The perimeter of a rectangle is 46 centimeters. The width of the rectangle is 9 centimeters. How long is the rectangle?

[A] 37 cm
[B] 14 cm
[C] 18 cm
[J] 10 cm
12. A grocery store sells bags of pears. The graph shows the average price of a bag of pears over five months.


What was the average price of a bag of pears in September?
[A] \$5.00
[B] \$3.50
[C] \$6.50
[D] $\$ 4.50$
3. Divide: $156 \div 4$
[A] 36
[B] 38
[C] 39
[D] 29
4. Which decimal number shows two and twenty-two hundredths in standard form?
[A] 0.222
[B] 2.22
[C] 2.022
[D] 20.22
5. The fractions $\frac{1}{3}, \frac{1}{2}$, and $\frac{1}{6}$ can be found on the number line. Which statement is true?

[A] $\frac{1}{2}>\frac{1}{3}$
[B] $\frac{1}{6}>\frac{1}{2}$
[C] $\frac{1}{3}<\frac{1}{6}$
6. Add: $\frac{1}{8}+\frac{3}{8} \quad$ (Simplify the answer if possible.)
[A] $\frac{1}{2}$
[B] $\frac{3}{8}$
[C] $\frac{3}{16}$
[D] $\frac{1}{4}$
7. The number of people who bought football tickets in one year was 140,669 people. The next year 242,760 people bought football tickets. About how many people bought tickets in the two years?
[A] 100,000 people
[B] 600,000 people
[C] 300,000 people
[D] 500,000 people
8. What is the word form of 919,367 ?
[A] ninety-one thousand, three hundred sixty-seven
[B] nine hundred nineteen and three hundred sixty-seven thousand
[C] nine hundred nineteen thousand, three hundred sixty-seven
[D] nine hundred nineteen thousand, three hundred seventy-six
9. Amy had $\$ 8.50$ to spend for her sister's party. She spent $\$ 7.40$ on a present. How much did Amy have left to buy a card?
[A] \$1.10
[B] $\$ 2.20$
[C] \$0.10
[D] $\$ 1.00$
10. 615,577
[A] 583,659
[B] 583,649
[C] 583,749
[D] 584,649

| $-\quad 31,928$ |
| :--- |

11. Mr. Little's car has been driven 145,564 miles. Mrs. Sinclair's car has been driven 81,751 miles. About how many fewer miles has Mrs. Sinclair's car been driven than Mr. Little's car?
[A] 40,000 to 50,000 miles
[B] 80,000 to 90,000 miles
[C] 60,000 to 70,000 miles
[D] 100,000 to 110,000 miles
12. The perimeter of a rectangle is 230 meters. The width of the rectangle is 55 meters. How long is the rectangle?

[A] 87 m
[B] 175 m
[C] 60 m
[D] 77 m
13. The perimeter of a rectangle is 42 centimeters. The width of the rectangle is 9 centimeters. How long is the rectangle?

[A] 12 cm
[B] 16 cm
[C] 33 cm
[D] 18 cm
14. Divide: $822 \div 2$
[A] 409
[B] 412
[C] 411
[D] 361
15. What is the expanded form of 222,823 ?
[A] $(2 \times 100,000)+(2 \times 10,000)+(2 \times 1,000)+(8 \times 100)+(2 \times 10)+(3 \times 1)$
[B] $(2 \times 100,000)+(2 \times 10,000)+(2 \times 1,000)+(8 \times 100)+(3 \times 10)+(2 \times 1)$
[C] $(2 \times 100,000)+(2 \times 10,000)+(2 \times 1,000)+(2 \times 100)+(8 \times 10)+(3 \times 1)$
[D] $(2 \times 100,000)+(2 \times 10,000)+(8 \times 1,000)+(2 \times 100)+(2 \times 10)+(3 \times 1)$
16. What is $\frac{3}{12}$ written in simplest form?
[A] $\frac{6}{24}$
[B] $\frac{9}{12}$
[C] $\frac{1}{4}$
[D] $\frac{1}{9}$
17. 97
[A] 6,884
[B] 6,994
[C] 5,984
[D] 6,984
$\begin{array}{r} \\ \times 72 \\ \hline\end{array}$
18. Subtract: $\frac{8}{9}-\frac{2}{9} \quad$ (Simplify the answer if possible.)
[A] $\frac{2}{3}$
[B] $\frac{7}{9}$
[C] $\frac{1}{3}$
[D] $\frac{5}{9}$
19. What is the standard form of two hundred thirty-two thousand, three hundred forty-three?
[A] 232,433
[B] 232,343
[C] 23,233
[D] 2,320,343
20. What is $\frac{5}{20}$ written in simplest form?
[A] $\frac{1}{5}$
[B] $\frac{4}{5}$
[C] $\frac{1}{4}$
[D] $\frac{1}{20}$
21. What is $\frac{6}{15}$ written in simplest form?
[A] $\frac{2}{3}$
[B] $\frac{1}{15}$
[C] $\frac{1}{3}$
[D] $\frac{2}{5}$
22. What type of angle is shown?
[A] obtuse angle
[B] acute angle
[C] right angle

23. Round 563.913 to the nearest tenth.
[A] 563.9
[B] 563.91
[C] 560
[D] 564
24. Oscar was buying lunch. He bought a small smoothie for $\$ 1.99$ and a chicken sandwich for $\$ 2.30$. How much did Oscar spend on lunch?
[A] $\$ 4.39$
[B] $\$ 4.40$
[C] $\$ 4.30$
[D] $\$ 4.29$
25. What is the expanded form of 714,207 ?
[A] $(7 \times 10,000)+(1 \times 1,000)+(4 \times 100)+(2 \times 10)+(7 \times 1)+(0 \times 0)$
[B] $(7 \times 100,000)+(1 \times 10,000)+(4 \times 1,000)+(2 \times 100)+(7 \times 10)+(0 \times 1)$
$[$ C] $(7 \times 100,000)+(1 \times 10,000)+(4 \times 1,000)+(2 \times 100)+(0 \times 10)+(7 \times 1)$
[D] $(7 \times 10,000)+(1 \times 1,000)+(4 \times 100)+(2 \times 10)+(0 \times 1)+(7 \times 0)$
26. $\frac{7}{8} \quad$ (Simplify the answer if possible.)
[A] $\frac{3}{4}$
[B] $\frac{7}{8}$
[C] $\frac{3}{8}$
[D] $\frac{5}{8}$
$-\frac{1}{8}$
27. How much time has passed?

Start time: 1:31 a.m.
End time: 2:41 a.m.
[A] 1 hour 10 minutes
[B] 2 hours 12 minutes
[C] 3 hours 10 minutes
[D] 4 hours 12 minutes
28. $\frac{9}{10}$
(Simplify the answer if possible.)
[A] $\frac{1}{5}$
[B] $\frac{3}{10}$
[C] $\frac{2}{5}$
[D] $\frac{1}{2}$
$-\frac{5}{10}$
29. The fractions $\frac{5}{8}, \frac{3}{4}$, and $\frac{1}{2}$ can be found on the number line. Which statement is true?

[A] $\frac{5}{8}<\frac{1}{2}$
[B] $\frac{1}{2}<\frac{3}{4}$
[C] $\frac{5}{8}>\frac{3}{4}$
30. Hadi's grandfather asked him to go to the store. Hadi spent a total of $\$ 3.58$ on sugar and eggs. The price of the sugar was $\$ 2.14$. What was the price of the eggs?
[A] $\$ 2.44$
[B] \$1.34
[C] \$5.72
[D] $\$ 1.44$
31. 633,861
[A] 661,701
[B] 661,801
[C] 661,791
[D] 660,801
$\begin{array}{r}+\quad 27,940 \\ \hline\end{array}$
32. Which list shows the decimals in order from least to greatest?
[A] 2.42, 2.44, 2.42, 4.22
[B] 2.24, 2.42, 4.22, 2.44
[C] 2.24, 2.42, 2.44, 4.22
[D] 2.42, 2.24, 2.44, 4.22
33. What is the perimeter of the rectangle?

[A] 1,210 feet
[B] 70 feet
[C] 1,200 feet
[D] 140 feet
34. Multiply: $21 \times 49$
[A] 1,129
[B] 1,029
[C] 1,030
[D] 1,019
35. What is the perimeter of the rectangle?

[A] 105 feet
[B] 230 feet
[C] 3,250 feet
[D] 115 feet
36. In a recycling drive, 5 classes each collected the same amount of newspaper. The classes collected 320 pounds in all. How many pounds of newspaper did each class collect?
[A] 63 pounds
[B] 64 pounds
[C] 604 pounds
[D] 603 pounds
37.
[A] 5,945,236
[B] 5,945,146
[C] 5,945,136
[D] 5,944,136
$\begin{array}{r}+\quad 344,435 \\ \hline\end{array}$
38. Which list shows the decimals in order from greatest to least?
[A] 3.33, 3.3, $0.33,3.03$
[B] 3.3, 3.03, 3.33, 0.33
[C] 3.3, 3.33, 3.03, 0.33
[D] 3.33, 3.3, 3.03, 0.33
39. What type of angle is shown?
[A] acute angle
[B] right angle
[C] obtuse angle

40. 861
[A] 5,176
[B] 5,266
[C] 5,166
[D] 5,226
$\times \quad 6$
41. $\frac{3}{10} \quad$ (Simplify the answer if possible.)
[A] $\frac{2}{5}$
[B] $\frac{1}{5}$
[C] $\frac{3}{10}$
[D] $\frac{3}{20}$
$+\frac{1}{10}$
42. 515
$\times 3$
43. Each workday, Jeff drives 24 miles from home to work and back to home. How many miles does Jeff drive in 76 workdays?
[A] 1,800 miles
[B] 1,824 miles
[C] 1,748 miles
[D] 1,724 miles
44. A rectangle is 14 inches long and 9 inches wide. Find its area.
[A] 135 square inches
[B] 23 square inches
[C] 46 square inches
[D] 126 square inches
45. A corner store sells bags of apples. The graph shows the average price of a bag of apples over five months.


What was the average price of a bag of apples in April?
[A] $\$ 10.00$
[B] $\$ 8.50$
[C] \$5.50
[D] $\$ 3.00$
46. A rectangle is 18 feet long and 8 feet wide. Find its area.
[A] 136 square feet
[B] 144 square feet
[C] 52 square feet
[D] 26 square feet
47. Round 33.14 to the nearest tenth.
[A] 30
[B] 33.1
[C] 33
[D] 33.2
48. Multiply: $4,532 \times 2$
[A] 8,064
[B] 9,064
[C] 9,074
[D] 8,964
49. What is the word form of 467,130 ?
[A] forty-six thousand, one hundred thirty
[B] four hundred sixty-seven and one hundred thirty thousand
[C] four hundred sixty-seven thousand, one hundred three
[D] four hundred sixty-seven thousand, one hundred thirty
50. Multiply: $13 \times 91$
[A] 1,283 [B] 1,173
[C] 1,183
[D] 1,184
51. A rectangle is 15 feet long and 4 feet wide. Find its area.
[A] 56 square feet
[B] 60 square feet
[C] 19 square feet
[D] 38 square feet
52. A car can travel 27 miles for each gallon of gas it uses. How many miles can the car travel using 53 gallons of gas?
[A] 1,431 miles
[B] 1,458 miles
[C] 156 miles
[D] 1,531 miles
53. What is the perimeter of the rectangle?
[A] 44 cm
[B] 180 cm
[C] 54 cm
[D] 27 cm

15 cm

54. Round 74.22 to the ones place.
[A] 70
[B] 75
[C] 80
[D] 74
55. What is the expanded form of 669,710 ?
[A] $(6 \times 10,000)+(6 \times 1,000)+(9 \times 100)+(7 \times 10)+(0 \times 1)+(1 \times 0)$
[B] $(6 \times 100,000)+(6 \times 10,000)+(9 \times 1,000)+(7 \times 100)+(0 \times 10)+(1 \times 1)$
[C] $(6 \times 10,000)+(6 \times 1,000)+(9 \times 100)+(7 \times 10)+(1 \times 1)+(0 \times 0)$
[D] $(6 \times 100,000)+(6 \times 10,000)+(9 \times 1,000)+(7 \times 100)+(1 \times 10)+(0 \times 1)$
56. $\frac{1}{6}$
[A] $\frac{1}{12}$
[B] $\frac{1}{2}$
[C] $\frac{1}{6}$
[D] $\frac{1}{3}$
$+\frac{1}{6}$
57. How much time has passed?

Start time: 1:42 p.m.
End time: 5:59 p.m.
[A] 6 hours 17 minutes
[B] 5 hours 41 minutes
[C] 7 hours 41 minutes
[D] 4 hours 17 minutes
58. The floor of a hallway in a building has an area of 138 square feet. The hallway is 6 feet wide. How many feet long is the hallway?
[A] 23 feet
[B] 22 feet
[C] 20 feet
[D] 21 feet
59. $8 \longdiv { 5 9 2 }$
[A] 72
[B] 74
[C] 75
[D] 84
60. A team of scientists was doing an experiment. As part of the experiment, they recorded the temperature of a liquid over five hours. The graph shows the results.


What was the temperature at noon?
[A] $20^{\circ} \mathrm{C}$
[B] $21^{\circ} \mathrm{C}$
[C] $6^{\circ} \mathrm{C}$
[D] $17^{\circ} \mathrm{C}$
61. An architect has designed 288 buildings in the last 9 years. Each year he designed the same number of buildings. How many buildings did he design last year?
[A] 33 buildings
[B] 302 buildings
[C] 32 buildings
[D] 303 buildings
62. A store sold 49,859 pairs of dark-wash jeans in one year. In the same year, they sold 46,624 pairs of boot-cut jeans. About how many pairs of dark-wash and boot-cut jeans did they sell altogether?
[A] 10,000 pairs
[B] 100,000 pairs
[C] 20,000 pairs
[D] 70,000 pairs
63. How much time has passed?

Start time: 4:26 a.m.
End time: 7:35 a.m.
[A] 11 hours 9 minutes
[B] 4 hours 9 minutes
[C] 4 hours 1 minutes
[D] 3 hours 9 minutes
64. Which list shows the decimals in order from least to greatest?
[A] 0.06, 0.6, 6.66, 6.36
[B] $0.6,6.36,0.6,6.66$
[C] 0.06, 0.6, 6.36, 6.66
[D] 0.6, 0.06, 6.36, 6.66
65. $5,687,554$

- 46,382

66. Which decimal number shows six and nine tenths in standard form?
[A] 6.09
[B] 60.9
[C] 6.9
[D] 0.69
67. What type of angle is shown?
[A] obtuse angle $\quad[B]$ acute angle
[C] right angle

68. The fractions $\frac{1}{2}, \frac{2}{3}$, and $\frac{5}{12}$ can be found on the number line. Which statement is true?

[A] $\frac{2}{3}>\frac{1}{2}$
[B] $\frac{5}{12}>\frac{2}{3}$
[C] $\frac{1}{2}<\frac{5}{12}$
69. What is the word form of 593,941 ?
[A] five hundred ninety-three and nine hundred forty-one thousand
[B] five hundred ninety-three thousand, nine hundred forty-one
[C] five hundred ninety-three thousand, nine hundred fourteen
[D] fifty-nine thousand, nine hundred forty-one

## Trabajo de Verano

Welcome to Fifth Grade Spanish! We're going to have a great año learning gramática, vocabulario, and cultura! To help you warm up to the challenges of Fifth Grade Spanish, take some time to fill out this worksheet over the summer. Credit will be given for it when you return. You can expect to be doing Spanish homework regularly next year. ¡Nos vemos en agosto!

Basic Conversation: Fill in the missing portions of the basic conversation terms using the word bank on the right.

1. To say good morning: $\qquad$ días.
2. To say good afternoon: Buenas $\qquad$ .
3. To say hello: i $\qquad$ !
4. To say goodbye: i $\qquad$ !
5. To say see you later: $\qquad$ luego.
6. To ask someone's name: ¿Cómo te $\qquad$
7. To tell someone your name: $\qquad$ llamo (+ your name).
8. To say pleased to meet you: $\qquad$ gusto.
9. To say please: Por $\qquad$ .
10. To say thank you: $\qquad$ .

Gracias
Hola
Hasta
Me
favor
Buenos
Mucho
tardes
Adiós
Ilamas

Days of the Week: List los dias de la semana in Spanish beginning with Monday (remember to use lower case!) .

Months of the Year: List los meses del año in Spanish beginning with January (remember to use lower case!).

Seasons and Weather: List las cuatro estaciones in Spanish and tell what the weather terms mean in English.

| Summer: | Hace sol: <br> Hace calor: |
| :---: | :---: |
|  |  |
| Fall: | Hace viento: |
| Winter: | Llueve: |
| Spring: | Hace frío: |
|  | Nieva: |

Classroom vocabulary: Write the meaning of each expression in the space provided. (use a Spanish-English Dictionary if you need help!).
la carpeta: $\qquad$
el cuaderno: $\qquad$
el libro: $\qquad$
el pupitre: $\qquad$
la profesora: $\qquad$
el lápiz:
el bolígrafo:
la hoja de papel: $\qquad$
el/la estudiante: $\qquad$
la sala de clases: $\qquad$

Number Knowledge: Fill in the missing cardinal numbers in each series (the first one has been done for you):

1. cuatro, 5 , seis
2. $\longrightarrow$, veinticuatro, veinticinco
3. siete, $\qquad$ nueve
4. treinta y seis $\qquad$ , treinta y ocho
5. diez, once, $\qquad$ 8. $\qquad$ cincuenta, cincuenta y uno
6. $\qquad$ dieciséis, diecisiete
7. setenta, $\qquad$ , setenta y dos
8. Dieciocho, $\qquad$ veinte
9. noventa y ocho, $\qquad$ , cien

Telling Time: Choose the correct time for each clock by placing a checkmark in the corresponding box.


- Son las ocho en punto

D Son las diez y cuarto

- Es la una menos cuarto
$\begin{array}{ll}\text { - } & \text { Son last tres menos cuarto } \\ \text { Son last tres y cuarto }\end{array}$
- Es la una y cuarto


## Getting to Know Infinitives:

Look up the grammatical term "infinitive" and tell what it means in the space provided below.

## Infinitive:

$\qquad$

Find three examples of Spanish infinitives, one with each of the three different endings (-ar, -er, and -ir).

## -AR

$\qquad$ -ER: $\qquad$ -IR: $\qquad$

