



Hillfield Strathallan College  
Middle School

# Grade 5 Mathematics Review—Answers



Hillfield Strathallan College  
Learn with Joy. Live with Purpose.

# Summer Review - Gr. 5 math.

## Part A - Numeration

1) Write the place value of the 6.

4 368 250 187 60 000 000

2) Round to the nearest:

a. hundred thousand 482 615 500 000

b. million 43 281 571 3 000 000

c. ten thousand 8 462 005 285 60 000

3) Write in expanded form

362 050 025 300 000 000 + 60 000 000 +  
2 000 000 + 50 000 + 20 + 5

4) Write in words

202 470 643 two hundred two million four hundred  
seventy thousand six hundred forty-three

5) Write in standard form (as a number)

a. two billion forty-seven million six hundred one thousand

2 047 601 000

b.  $600\,000\,000 + 5\,000\,000 + 20\,000 + 400 + 6$

605 020 406

6) Write the number that is:

a. 10 million more than 127 483 651 137 483 651

b. 10 000 less than 300 000 290 000

Word Problems

1. Write 2 six digit numbers so that one is exactly ten thousand more than the other Answers will vary.

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2. I am a 7 digit number. My units is the highest counting digit. My hundreds, ten thousands, and millions are consecutive even numbers. My tens, thousands, and hundred thousands are consecutive odd digits. My hundred thousands is a multiple of 5, and my tens is a factor of all numbers. What number am I?

6 543 219

Part B- Computation of Whole Numbers

$$\begin{array}{r} 1) \quad 3058 \\ -2194 \\ \hline 864 \end{array}$$

$$\begin{array}{r} 2) \quad \overset{1}{3}1527 \\ +6842 \\ \hline 38369 \end{array}$$

$$\begin{array}{r} 3) \quad \overset{5}{100}62 \\ -9953 \\ \hline 0009 \end{array}$$

4)  $6\,241 + 37\,852 + 68\,253 = \underline{112\,346}$

5)  $30\,421 - 9\,856 = \underline{20\,565}$

$$\begin{array}{r}
 6) \quad 483 \\
 \times 9 \\
 \hline
 4347
 \end{array}$$

$$\begin{array}{r}
 \phantom{0}3 \\
 \phantom{0}4 \\
 7) \quad 781 \\
 \times 45 \\
 \hline
 3905 \\
 + 31240 \\
 \hline
 35145
 \end{array}$$

$$\begin{array}{r}
 \phantom{0}1 \\
 \phantom{0}1 \\
 \phantom{0}2 \\
 \phantom{0}2 \\
 \phantom{0}8 \\
 \phantom{0}8 \\
 8) \quad 4067 \\
 \times 238 \\
 \hline
 32536 \\
 122010 \\
 + 813400 \\
 \hline
 967946
 \end{array}$$

9)  $2\,000 \times 800 = \underline{1\,600\,000}$

$$\begin{array}{r}
 0645 \\
 6) \overline{3870} \\
 \underline{-36} \downarrow \\
 27 \\
 \underline{-24} \downarrow \\
 30 \\
 \underline{-30} \\
 0
 \end{array}$$

Dad ÷  
 Mom x  
 Sister -  
 Brother ÷

$$\begin{array}{r}
 09539 \\
 8) \overline{76312} \\
 \underline{-72} \downarrow \\
 43 \\
 \underline{-40} \downarrow \\
 231 \\
 \underline{-24} \downarrow \\
 72 \\
 \underline{-72} \\
 0
 \end{array}$$

$$\begin{array}{r}
 00642 \text{ r } 12 \\
 75) \overline{48162} \\
 \underline{-450} \downarrow \\
 316 \\
 \underline{-300} \downarrow \\
 162 \\
 \underline{-150} \\
 12
 \end{array}$$

Estimate to solve the following:

1)  $29 \times 348 =$   $30 \times 300 = 9000$

2)  $17\,582 - 2\,121 =$   $18\,000 - 2\,000 = 16\,000$

3)  $48\,206 + 4\,872 + 9\,146 =$   $48\,000 + 5\,000 + 9\,000 = 62\,000$

Problem Solving- Show all of your work!

1) If a yoyo machine can produce 700 yoyos in an hour, how many yoyos can it produce in 380 hours?

GIVEN: 700 yoyos in an hour

FIND: How many can be produced in 380 hrs.

FORMULA: X

CALCULATIONS:

$$\begin{array}{r} 380 \\ \times 700 \\ \hline 266\,000 \end{array}$$

CONCLUSION: They will be able to produce 266 000  
Did you check your work? Is your answer reasonable? in 380 hours.

2) It takes 83 hours to assemble one car. How many cars can be completed in 3458 hours?

GIVEN: 83 hours to assemble one car.

FIND: How many can be assembled in 3458 hrs?

FORMULA: ÷

CALCULATIONS:

$$\begin{array}{r}
 83 \overline{) 3458} \\
 \underline{- 332} \phantom{0} \\
 138 \\
 \underline{- 126} \\
 12 \\
 \underline{- 12} \\
 0
 \end{array}$$

$\begin{array}{l} D \div \\ 3 \times \\ 5 - \\ 8 \downarrow \end{array}$

CONCLUSION: They can assemble 41 cars in 3458 hrs.

Did you check your work? Is your answer reasonable?

3) Mrs. Rocca gave both of her children \$30.00 to spend at Fair Day. The pass for the activities was \$20.00 for each child. Vanessa bought a hot dog and a drink for \$2.50. Alexandra bought popcorn, cotton candy, and a drink for \$6.50. How much change did Mrs. Rocca get back? (two steps)

STEP 1

GIVEN: \$30.00 each

FIND: Total expenses

FORMULA: +

CALCULATIONS:

$$\begin{array}{r}
 20.00 \\
 20.00 \\
 V - \cancel{25.00} \quad 2.50 \\
 A - \quad \quad \quad +6.50 \\
 \hline
 49.00
 \end{array}$$

CONCLUSION: \$49.00 in expenses.

STEP 2

GIVEN:

60 total money

FIND:

How much change did Mrs. Rocca receive?

FORMULA:

-

CALCULATIONS:

$$\begin{array}{r} 560.00 \\ - 49.00 \\ \hline 11.00 \end{array}$$

CONCLUSION:

She received \$ 11.00 in change.

Did you check your work? Is your answer reasonable?

### Part C- Measurement and Word Problems

1) Insert the correct metric unit of measurement

a) The height of a teacher's desk- 80 cm

b) The length of the black top- 30 m

c) The length of this paper- 275 cm

2) Complete the following

a) 45 cm = 450 mm

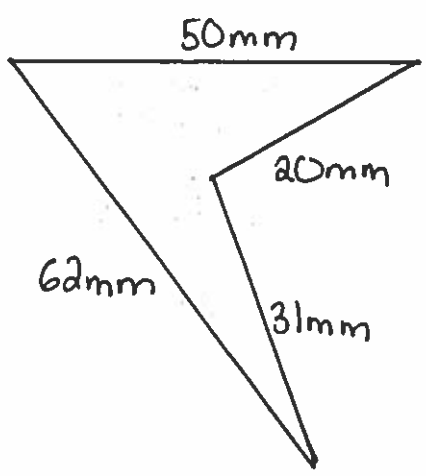
b) 3 m = 300 cm

c)  $450 \text{ mm} = \underline{.45} \text{ m}$

d)  $2 \text{ km} = \underline{2000} \text{ m}$

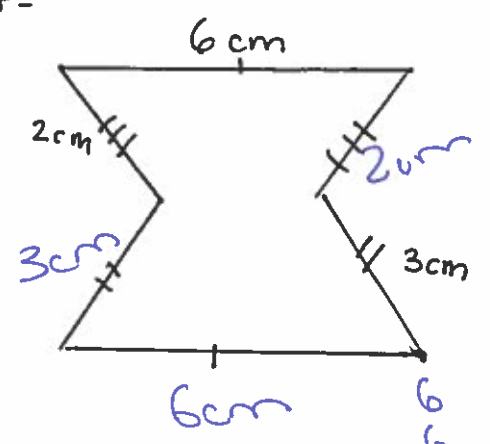
3) Find the perimeter

a. P=



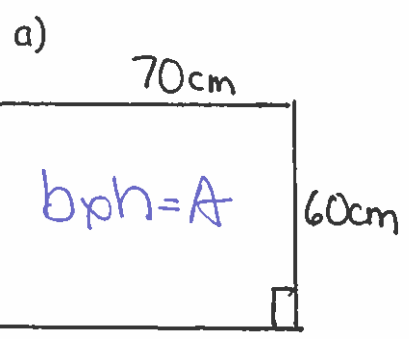
$$\begin{array}{r} 50 \\ 20 \\ 31 \\ + 62 \\ \hline 163 \text{ mm} \end{array}$$

b. P=

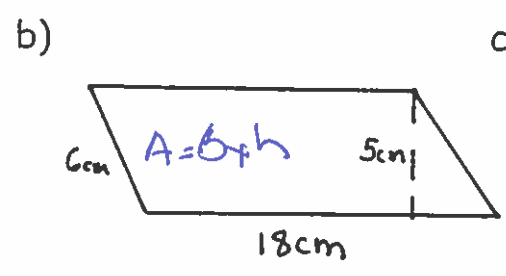


$$\begin{array}{r} 6 \\ 2 \\ 3 \\ 6 \\ 3 \\ 2 \\ + 3 \\ \hline 22 \text{ cm} \end{array}$$

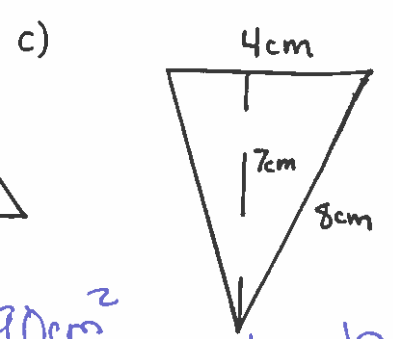
4) Find the area. Show your formula!



$$60 \times 70 = 4200 \text{ cm}^2$$



$$18 \times 5 = 90 \text{ cm}^2$$

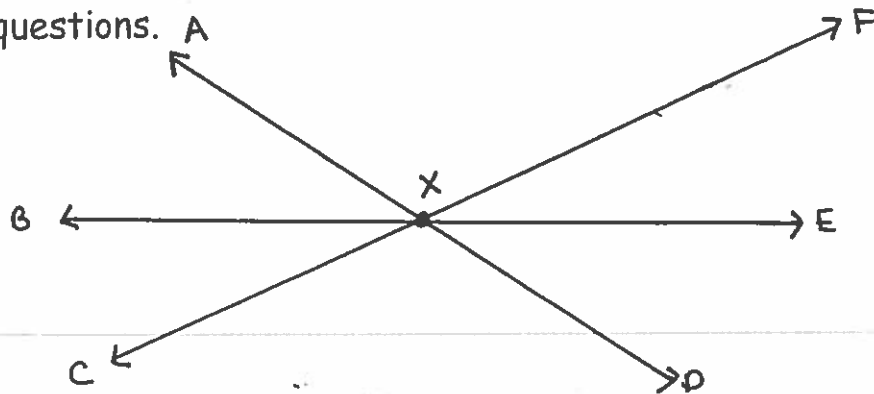


$$A = \frac{1}{2} b \times h$$

$$2 \times 7 = 14 \text{ cm}^2$$



5) Identifying angles and polygons- use the diagram to help you answer the questions.



a) Name 2 acute angles  $\angle BXC$   $\angle FXE$

b) Name 2 obtuse angles  $\angle BXF$   $\angle EXA$

c) Measure angle AXF and record your answer  $124^\circ$

6) What is a 10-sided polygon called? Decagon

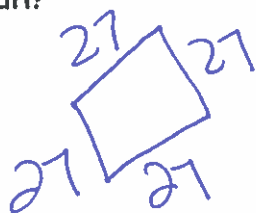
7) What type of triangle has two sides with equal length? Isosceles

8) What does congruency mean? (2 marks)

- Exactly equal in size
- Exactly equal in shape

*Word Problems (Show your work. A diagram is useful, and if you are doing area, remember to show your formula!)*

1) The distance between bases on a baseball diamond is 27m. What is the shortest possible distance a player runs after hitting a home run?



$$27 * 4 = 108m$$

The shortest possible distance is 108m. <sup>8</sup>

2) Each desk in our class is 60cm long and 45cm wide. If there are 22 desks in the class, what is the total surface area of the desks?

$$60 \times 45 = 2700 \text{ cm}^2$$

$$2700 \times 22 = 59400 \text{ cm}^2$$

### Part D- Decimals

1) Write the number:

a) three hundred five thousandths .305

b) five and two hundredths 5.02

2) Write in words

58.031 Fifty-Eight and thirty-one thousandths

3) Write the place value of the 9

38.098 .09

4) Write an equivalent decimal for the following:

a) 38.010 38.01

b) 0.72 0.720

5) Complete using >, <, or =

a) 3.07 < 3.7

b) 48.6 > 48.537

c)  $0.38 > 0.309$

6) Write in order, smallest to largest

48.071

48.7

48.583

48.071, 48.583, 48.7

7) Round to the nearest:

a) whole number      4.68 5

b) hundredth      3.723 4

8) Add or subtract as indicated

a)  $4.010$   
 $+ 3.521$   
7.531

b)  $7.050$   
 $- .528$   
6.522

c)  $0.62 + 9.5 + 0.037$  10.157

d)  $48.05 - 13.555 =$  34.495

9) Multiply or divide as indicated

$$\begin{array}{r} 4 \\ a) \quad 40.5 \\ \quad \times 8 \\ \hline 324.0 \end{array}$$

$$\begin{array}{r} 2 \\ 1 \\ b) \quad 5.6 \\ \quad \times 4.3 \\ \hline 168 \\ 2240 \\ \hline 2408 \end{array}$$

\*no remainders

$$\begin{array}{r} 0.7 \\ c) \quad 8 \overline{)5.6} \\ \underline{0} \\ 56 \\ \underline{56} \\ 0 \end{array}$$

$$\begin{array}{r} 0.5 \\ d) \quad 48 \overline{)240} \\ \underline{0} \\ 240 \\ \underline{240} \\ 0 \end{array}$$

### Problem Solving

1) A pen cost \$1.35. How much 5 pens cost?

GIVEN: Pen costs - 1.35    5 pens.

FIND: how much will 5 pens cost?

FORMULA: x

CALCULATIONS:

$$\begin{array}{r} 1.35 \\ \times 5 \\ \hline 6.75 \end{array}$$

CONCLUSION: 5 pens will cost \$6.75.

Did you check your work? Is your answer reasonable

2) A stack of boards is 2.5 metres high. If each board is .005 metres thick, how many boards are there?

GIVEN: boards are 2.5m high / each board is 0.005

FIND: how many boards?

FORMULA:  $\div$

CALCULATIONS:

$$\begin{array}{r} 500 \\ \hline .005 \overline{) 2.500} \\ \underline{2.5} \phantom{0} \\ 00 \\ \underline{00} \\ 00 \\ \underline{00} \\ 0 \end{array}$$

CONCLUSION: There are 500 boards.

Did you check your work? Is your answer reasonable?

3) Leroy spends \$2.50 on a kazoo. He spends \$0.25 less than that on a yo-yo. He bought a slice of pizza for \$1.50 and juice for half that price. How much money did Leroy have left if he started with \$10.00?

$$\text{Kazoo} = 2.50$$

$$\begin{aligned} \text{Yo-yo} &= 2.50 - 0.25 \\ &= 2.25 \end{aligned}$$

$$\text{pizza} = 1.50$$

$$\begin{aligned} \text{juice} &= 1.50 \div 2 \\ &= 0.75 \end{aligned}$$

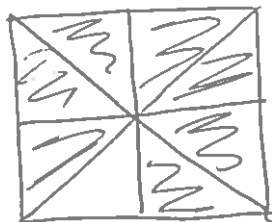
$$\begin{array}{r} \text{Spent} - \\ \underline{2.50} \\ 2.25 \\ 1.50 \\ .75 \\ \hline 7.00 \end{array}$$

Leroy had  
\$3.00 left.

$$\begin{array}{r} \$ \text{ Left} = 10.00 \\ \underline{- 7.00} \\ 3.00 \end{array}$$

## Part E- Fractions

1) Draw a square and shade  $\frac{7}{8}$  of it.



2) Find the missing number

a)  $\frac{5}{9} = \frac{30}{54}$

b)  $\frac{11}{15} = \frac{110}{150}$

3) Simplify these fractions to lowest terms

a)  $\frac{29}{58} = \frac{1}{2}$

b)  $\frac{70}{80} = \frac{7}{8}$

c)  $\frac{45}{54} = \frac{5}{6}$

4) Change these mixed numbers to improper fractions and vice versa

a)  $\frac{13}{4} = 3\frac{1}{4}$

b)  $3\frac{5}{6} = \frac{23}{6}$

c)  $2\frac{3}{7} = \frac{17}{7}$

5) Put these fractions in order from smallest to largest

$\frac{3}{5}, \frac{4}{5}, \frac{1}{5}, \frac{5}{5}$

$\frac{1}{5}, \frac{3}{5}, \frac{4}{5}, \frac{5}{5}$

6) Write each answer in lowest terms

$$\text{a) } \frac{13}{25} + \frac{2}{25} = \frac{15}{25} = \frac{3}{5}$$

$$\text{b) } \frac{1}{8} + \frac{5}{8} = \frac{6}{8} = \frac{3}{4}$$

$$\text{c) } \frac{6}{11} - \frac{2}{11} = \frac{4}{11}$$

$$\text{d) } \frac{9}{10} - \frac{6}{10} = \frac{3}{10}$$

$$\text{e) } 2\frac{3}{8} + 1\frac{1}{8} = 3\frac{4}{8} \\ = 3\frac{1}{2}$$

$$\text{f) } 3\frac{3}{4} - 1\frac{1}{4} = 2\frac{1}{2}$$

$$\text{g) } \frac{1}{9} + \frac{2}{3} = \frac{1}{9} + \frac{6}{9} \\ = \frac{7}{9}$$

$$\text{h) } \frac{11}{12} - \frac{3}{4} = \frac{11}{12} - \frac{9}{12} \\ = \frac{2}{12} = \frac{1}{6}$$

7) Change the following fractions into decimals

$$\text{a) } \frac{1}{2} = .50$$

$$\text{b) } \frac{1}{4} = .25$$

8) Change the following decimals into fractions (lowest terms)

$$\text{a) } 0.4 = \frac{4}{10} = \frac{2}{5}$$

$$\text{b) } 0.55 = \frac{55}{100} = \frac{11}{20}$$

### Challenging Word Problems

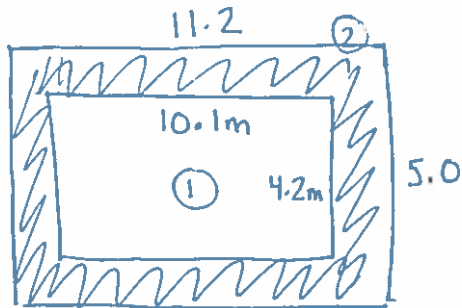
1) Uncle Henry was driving to Halifax when he spotted a big green gorilla on the side of the road. He screeched to a stop, and jumped out of his car. He saw the outline of a number on the gorilla. He couldn't quite see the number, but he knew it was a 4 digit number. And:

- a) He remember seeing a number 1
- b) In the hundred's place he remembers the number is 3 times the number in the thousands place.
- c) He said the number in the one's place is 4 times the number in the ten's place.
- d) Finally, he said the number 2 is sitting in the thousands place.

What is the number?

2
6
1
4

2) Elmer Fudd decided to grow a garden so he could make a salad. He wants to make it 10.1m long and 4.2 m wide. However, in order to avoid Bugs Bunny from entering his garden he must make a fence surrounding the garden. He decides to make the fence 11.2m long and 5.0m wide. What is the area between the fence and the garden?



$$\begin{aligned}
 A_2 &= b \times h \\
 &= 11.2 \times 5 \\
 &= 56 \text{m}^2
 \end{aligned}$$

$$\begin{aligned}
 A &= A_2 - A_1 \\
 &= 56 - 42.42 \\
 &= 13.58 \text{m}^2
 \end{aligned}$$

$$\begin{aligned}
 A_1 &= b \times h \\
 &= 10.1 \times 4.2 \\
 &= 42.42 \text{m}^2
 \end{aligned}$$

3) Jenny bought 7 t-shirts, one for each of her seven brothers, for \$9.95 each. The cashier charged her an additional \$13.07 in sales tax. She left the store with a measly \$7.28. How much money did Jenny start with?

$$\begin{array}{r}
 \text{t-shirts} = 9.95 \\
 \quad \times 7 \\
 \hline
 69.65 \\
 \text{tax} + 13.07 \\
 \hline
 \$82.72
 \end{array}$$

$$\begin{array}{r}
 82.72 \\
 + 7.28 \\
 \hline
 90.00
 \end{array}$$

Jenny started with \$90.00



4) On an average day, Canadians spend \$958 904.00 buying video games. Of this total \$767 123.00 is spent on Nintendo games. In one week how much do Canadians spend on Nintendo games? How much do they spend on other video games in a week?

①

$$\begin{array}{r} 767\ 123.00 \\ \times 7 \\ \hline 5\ 369\ 861.00 \end{array} \rightarrow \text{spent on Nintendo game}$$

Other Games

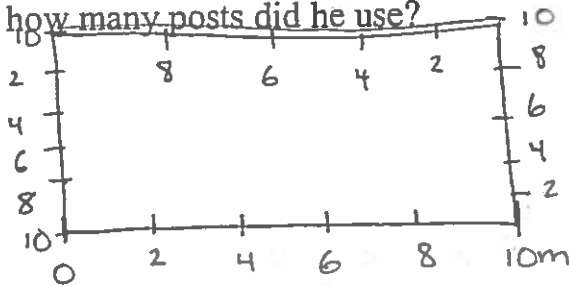
$$\begin{array}{r} 89\ 158\ 104 \\ - 767\ 123 \\ \hline \$ 191\ 771 \end{array}$$

In one week

$$\begin{array}{r} 191\ 771 \\ \times 7 \\ \hline 1\ 342\ 397 \end{array}$$

on other video games in a week

5) Farmer Tom put a square fence around his vegetable garden to keep the deer from eating his corn. One side was 10m in length. If the posts were placed 2m apart, how many posts did he use?



20 posts are needed.

6) Do these parallelograms have the same area? How do you know?

7) A man has to be at work by 9:00 a.m. and it takes him 15 minutes to get dressed, 20 minutes to eat and 35 minutes to walk to work. What time should he get up?

$$\begin{array}{r} 15 \\ 20 \\ 35 \\ \hline 70 \end{array}$$

7:50am

700

8) In the first year of a production a play sells 1572 tickets, in its second year it sells 1753 tickets, in its third year it sells 152 less than its second year. How many tickets are sold in 3 years?

$$\begin{array}{r} \text{Year 3} - 1753 \\ - 152 \\ \hline 1601 \text{ in 3rd year} \end{array}$$

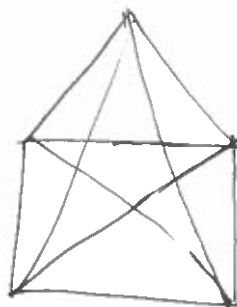
9) The Riddler has left a clue for Batman to follow at the scene of each crime. These are the clues that Batman has found:

- a) There is a 1 in the thousands place
- b) The digit in the tens place is 9 times the digit in the thousands place
- c) Multiply the digit in the thousands place by 2
- d) The digit in the ones place is a hand without a thumb
- e) The digit in the hundreds is 2 less than the number in the tens

*Solve the riddle to find the number and help Batman stop the Riddler*

2      7      9      4

10) If every vertex of a regular pentagon is connected to every other vertex, how many triangles are formed?



10

