# SEPTEMBER - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| Create a number sentence that includes any operation and equals 479. | Complete the next three terms in the pattern. 1, 3, 6, 10, 15 . . . | What will the tenth number in the pattern be? 1, 3, 6, 10, 15 . . . | How would you draw this pattern? 1, 3, 6, 10, 15 . . . | If you had to explain the pattern rule, what would you say? 1, 3, 6, 10, 15 . . . |
| Bank 1 charges $4.50 a month plus $0.25 a cheque. Bank 2 charges $0.50 per cheque. Why pick Bank 1? | Ask another member of your family to add 789 and 516. Compare methods. | Write any 5 digits. Order them to create the largest and smallest possible numbers. | Explain why these expressions are equal:<br>4 x 600; 40 x 60; 400 x 6; 4000 x 0.6 | Use a calculator. Multiply decimal numbers by 10, 100, 1000, and 10 000. Look for patterns. |
| Use a calculator. Multiply decimal numbers by 10, 100, 1000, and 10 000. Can you develop a rule? | How is counting by hundredths and measuring lengths in cm and m similar or different? | Which CD club plan is better... $10 per CD, or first 2 CDs free, and $12 per CD after that? Why? | Explain what you know about growing and shrinking patterns. | What is a repeating pattern? Create repeating patterns to illustrate your repeating pattern ideas. |
| If 24x12=288, then 288 ÷ G= 12. Can you write another equation using these 3 numbers? | How much money do you think you would you need to treat your entire family to a meal at McDonalds? | How would you add 789 and 516 without the use of a calculator or a pencil? | Find 10 things in your house that can be purchased for less than $2.00 each. | |

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# OCTOBER - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| Survey friends and family. Find out which season is their favourite. Organize the information to share your results with others. | Complete the pattern. What will the next 3 terms be? 7, 21, 63, 189 . . . | Pick a number in the tenths. Multiply it by 10, 100, 1000, 10 000. What do you notice? | Create a number sentence that uses addition and subtraction and is equal to 746. | If you had $10.00 to spend on snacks, what could you buy with it? |
| Compare 7 568 and 6 758. What do you notice? | Is it possible for a football team to score 11 points during a game? Make a list or table to help you. | A rocket faces south at 9:00 a.m. It makes one clockwise turn each hour. Which way will it face at 6:45 p.m.?(A chart helps!) | Will keeping track of a team's win-loss record help you predict their future wins and losses? Explain. | On what day of the week were you born? Explain how you solved this problem. |
| Can you make a rule that would work for finding anyone's birth date? | How many times do you have to subtract .20 from 10.0 to get to zero? | Put these numbers in order from smallest to largest. 2.4 2.38 2.43 2.30 2.46 | Is 3.09 closer to 3 or to 4? Is it closer to 3.1 or 3.0? Tell how you know. | Your faucet drips once every 2 seconds. How could you determine how much water is wasted in a day? |
| Do you think the amount of water lost will fill a glass, a sink, or a tub? Why? | A cookie recipe calls for 20ml of butter for 12 cookies. To make 60 cookies, how much butter will you need? | Create a number pattern. Have someone explain your pattern and tell you a patterning rule. | How many boxes hold 100 000 sheets of paper, if one box holds 8 packages, and one package contains 500 sheets of paper? | Janie estimates that $401.29 plus $27.00 is approximately $430.00. Is her estimation reasonable? Explain. |

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# NOVEMBER - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| Moira used a calculator to add 7.45 and 2.39. The display showed 31.35. What happened? Explain. | Pick a number in the hundredths. Multiply it by 10, 100, 1000, 10 000. What do you notice? | You have 2 wooden planks that are each 180 cm long. How many shelves can you make from them if each shelf needs to be 75cm long? | Count forward by hundredths. How far can you count? Explain | Pick a three-digit number less than 500. To make 500, what would the other part be (*e.g.*, for 335, the other part is 165)? |
| What error was made solving this question? 246 + 127 = 3613 What is the correct answer? | Name a decimal number between 6.4 and 6.5. Is your number closer to 6.4 or 6.5? Tell how you know. | At your house, can you find anywhere where numbers with hundreds or thousands are written in words? | You have saved $35. Each week you save $4 more. How long will it take you to save at least $58? | Is the number 3.51 closer to 3, 4 or 5? Explain. |
| Find two 3 digit numbers with a difference where the ones digit is 3. | Pick any four-digit number and find several ways to show that number in two parts (*e.g.*, 4095 can be 2005 and 2090). | How are the numbers 5, 50, 500 and 5000 the same, and how are they different? | The mean of two numbers is 9. If one number is 8, what is the other number? | Use the digits 2, 9, 6, 4 to create as many numbers as you can whose value is between 3000 and 8000. |
| Use the numbers 4 000, 8 000, and 20 000 to create a mathematical story that makes sense. | How are these equations related? 351 - 119 = 232 232 + 119 = 351 | Five teams are to play in a tournament. Each team plays every other team once. How many games will there be? | Take turns rolling a number cube. Multiply the number you get by 1,10, 100, or 1000. The first running total closest to 10 0000 wins. | What error was made solving this question? 362 = 726 - 488 Correct the equation to make it true. |

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# DECEMBER - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| Which is better: 7 days work for $20 a day, or $2 the first day and doubled wage every day after? Why? | If you bought a hat for $6, sold it for $7, bought it back for $8, and then sold it again for $9, what would your profit be? | Use the same digits as yesterday, but include a decimal with each number you create. How does this change your results? | Look at the buildings on your street. What shapes can you find represented there? | If you had to conduct a survey to determine if your family was getting enough sleep to stay healthy, what questions might you ask? |
| Write 3 different multiplication expressions that equal 1200. Represent each with a drawing. | What will the next five numbers in the pattern be? 1, 4, 9, 16, 25 . . . | How would you draw this pattern? 1, 4, 9, 16, 25 . . . | Try to state a patterning rule. 1, 4, 9, 16, 25 . . . | If John were 6.5 cm taller, he would be twice as tall as Stu. If Stu is 65.25 cm tall, how tall is John? |
| Look at the buildings on your street. What shapes can you find represented there? | Why might you choose to display survey information in a graph instead of recording the information in a different way? | If your cousins were 5, 9, and 10 years old, what would their mean age be? | Is a circle graph a good choice to use if you wish to display survey results of your family's favourite foods? Explain. | Pick a single-digit number. How many times can you double it before reaching 1000? |
| Pick a three-digit number. What would the other part be to make 1.00? (For example, If you pick .125, the other part is .875.) | Find items which contain triangular shapes. How are the triangles alike and different? | Pick a number between .50 and 1.00 and complete: .50 and _____ makes my number. | True or false: Any multiplication equation can be shown as a rectangle. Explain. | Use the digits 2, 9, 6, 4 to create the greatest number possible. Now use them to create the least number possible. |

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# JANUARY - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| What is the missing number in the equation below...<br>5 x ___ = 65 | Create a shrinking number pattern. Challenge someone to guess your pattern rule. | Find two 3 digit numbers with a difference greater than 38. | Round 7 981 to the nearest ten, hundred, thousand. What do you notice? | What things around your home have only one right angle? |
| How many times would you need to multiply 0.1 by 10 to reach 100? | Look at the buildings on your street. Where do you see 90 degree angles? | Create a repeating number pattern which includes multiplication. | Explain what happens to a decimal number when you multiply it by 10, 100, 1000, 10 000? Why is this? | If you have 1 metre of string, what different size rectangles could you create with it? |
| True or False: 24 X 17 is equal to 20 X10 plus 20 X 7? Prove you are correct. | Find examples of obtuse angles in your home. Record your findings. | If someone drove 56 km for work each day, how many km would s/he drive in one month? | Find examples of straight angles in your home. Record your findings. | What happens to a decimal number when you multiply it by 10 000? Explain why this occurs. |
| You used 1m of string to make a square figure. What unit of measure would you use to describe its side lengths? Why? | Show at least two different ways to solve this equation:<br>35 X 41= ? | What happens to a decimal number when you multiply it by 10? When would knowing this be useful? | Find examples of acute angles in your home. Record your findings. | Which type of angle (straight, acute, obtuse), did you find most often? Why is this? |

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# FEBRUARY - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| What objects in your home are made up of rectangular and square faces? | Find objects in your home that are prisms. How do you know they're prisms? | You want to frame a 25 x30 cm picture. What length of framing will you need to buy? Explain. | Pick a two-digit number. Double it and add one. How many times can you do this before you reach 1000? | If you were to write counting numbers in rows of seven, on which row would 100 land? |
| If you were to write counting numbers in rows of six, in which column would 100 fall? | Create a number pattern using addition and division. Have someone else guess your patterning rule. | Use a calculator to multiply 142 857 by the numbers 2 through 9. Can you find something noticeable about each answer? | Fabric costs $10/M. About how much will it cost for fabric to make a bedspread? | Start with 100. Create a number pattern using sub- traction and multiplication. Have someone guess your patterning rule. |
| What objects in your home have some round faces? | You do not have a protractor. How can you figure out if an angle is acute or obtuse? | How many squares are there in the border of a 10 x 10 grid? Explain your reasoning. | Use the numbers 3, 9, and 1.5, to create a mathematical story that makes sense. | What objects in your home are made up of only rectangular faces? |
| 15 people in a room shake hands with every other person in the room. How many handshakes is that? | Explain how you would change a measurement from cm to m. | Explain why you might need to convert km to m, or vice versa. | Write the numbers 1 through 30 on slips of paper. Sort them into three groups. Name your sorting rule. | If it is 6 degrees at breakfast, with an expected high of 22 C, will you need to wear a coat to school? Explain. |

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# MARCH - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| Use what you know about equivalent fractions to decide which fraction is larger.<br>*25/50, 5/10, 7/12, 15/30* | Pick a two-digit number. How many times can you triple it before reaching 1000? | Explain the calculation error in the following equation: 15 x 12 = 45 | You get 2 cents the first day of a month and double that each day. What would you have by month's end? | Find as many ways as you can to write 12 as a sum. Explain your strategy. |
| 47 x 23 = 981 Without calculation, tell why the answer to this question is or is not reasonable. | 47 x 23 = ?<br>Solve. Prove you are correct using division. | Can a triangle have more than one right angle? Provide reasons for your thinking. | How could you figure out how much water you'd need to fill a pool if you did not have the pool's dimensions? | A palindrome is a number that reads the same way forward and backward. Write 5 three- digit palindromes. |
| Explain when it would be useful to know a perimeter measurement. | Name 5 fractions equivalent to 1/2. What patterns do you see? | 70 x 80 = 50 x 80 +20 x 80 Follow the pattern to write 5 of your own equations | How many seconds are there in 24 hours? How many minutes? | What is the mean temperature for the week in degrees Celsius? |
| Select 3 numbers to add. What problem might lead you to have to add those numbers? | Pick a number, double it, add 6, double it again, subtract 4, divide it by 4, and subtract 2. What is the number you get? | Look back over yesterday's problem. Try to explain how that works. | Think of a 3D solid. Play 20 questions with a partner to identify the solid you selected. | Pick a two-digit number. What would the other part be to make 500? For example, if you pick 235, the other part would be 265. |

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# APRIL - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| 20 x 5 = 2 x (10 x 5) How does this multiplication strategy work? | If 1/3 of all homes have a pet dog, then 20 out of __ homes will have a dog. | Use what you know about 1/2 to decide which fraction is larger. 3/8 or 4/7? Explain. | Calvin used his allowance to purchase a new video game. His allowance was $12.00. The video game cost him $5.67. How much money did he have left? | If 8 counters are 1/2 of a set, how large is the set? How do you know? |
| Use what you know about numerators and denominators to order these fractions: 1/2, 8/10, 3/4, 2/5, 11/20 | You have nine Smarties. 3 are red. Name 2 fractions that tell what portion of the Smarties is red. | 200 x 17 = 2 x (100 x 17). Why might you use this multiplication strategy? How does it work? | Do you think 2/5, 4/10, and 40% can equal the same quantity? Why or why not? | True or false: 3 apples to 5 plums is the same ratio as 6 apples to 10 plums? Explain how you know. |
| 20 people represent half of the audience. How large is the audience? | Draw a rectangle. If the rectangle you drew is 3/4 of the whole, draw the whole. | Look in your cupboard. Record all the different units of measure you can find. What do you notice? | Convert 8.3 metres to centimetres. Explain how to do this. | Think of a 3D solid. Play 20 questions with a partner to identify the 3D solid you selected. |
| Is 2/5 of a metre the same thing as 1/2 of a metre? Explain. | If you are baking, what unit of measure would you use to measure flour? | Finish this statement: 4/5 is greater than 4/9 because. . . | If it is 2200 hours on a 24-hour clock, what time is it on a 12-hour clock? | Which of the following fractions does not belong in the set? Explain. 5/2, 1/2, 2/2, 2/4 |

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# MAY - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| In an area model, do equivalent fractions need to be congruent figures? Explain. | What is the relationship between triangles and pyramids? | 16 x 25 = 8 x 50 Does this multiplication strategy work? Explain. | If both shapes have a perimeter of 16 units, which has a greater area: a long rectangle or a square? | Give 5 real world examples of situations when you would need to measure time to the nearest second. |
| You need to triple your pancake recipe. If a single serving is 3/4 cup, how much will you need? | How are a number line and a ruler the same and different? | If the train departs Toronto at 11:30 a.m. and arrives in Montreal at 4:56 p.m, how long will you be on the train? | How does comparing a fraction to 0, 1/2, or 1 help determine its value? | Pick a number, double it, add 6,double it again, subtract 4, divide by 4, and subtract 2. Explain how this works. |
| Show how you would prove that 1/8 is closer to 0 than 1/2. | Paul visits the library every fourth day in January. Werda visits every sixth day. Nigel visits every eighth day. On what day of the month will they all visit the library together? | Write 10 equations. Use 4 operations in each (addition, subtraction, multiplication, division). | What time will it be in 2000 minutes from now? | Estimate and then solve.<br>Emma has $127.50. Don has $118.73. How much more money does Emma have than Don? |
| Multiply<br>345 x 23<br>using whatever method you feel most comfortable with. | My answer is 8. What is my question? | The mean of a set of numbers is 15. What are the possible numbers? | Pam bought three books that cost $28.82 each. About how much money did she spend? | Fill in the parts with numbers to make a true statement.<br>A% of B = C |

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# JUNE - GRADE FIVE

| MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|---|---|---|---|---|
| 2/3 of the students in a class prefer apples to oranges. How many students might be in the class? Explain. | Ray's class has 24 students. There are fewer girls than boys. How many girls might there be? Give 3 possibilities. | Explain why rounding to the nearest dollar isn't helpful for the following question. "Hannah has $39.47. Ali has $38.74. About how much more money does Hannah have than Ali? | Can you share 9 pancakes equally onto 2 plates? Show your work using dots for pancakes and circles for plates. | What is your favourite 3-digit number? Write it in words, standard form and expanded form. |
| Share everything you can about the number 88. | Choose 3 numbers to add. What problem might lead you to need to add those numbers? | You cannot use any digit more than once. Form the greatest number you can that is a multiple of 5. | What is the greatest possible number that you can create that has 3 digits? 4 digits? 5 digits? | Using the digits 0, 1, 2, 3, 4, create an even number greater than 42 000 and less than 43 000. |
| Think of a number. Make up clues so someone else could guess your number. | The answer is 49. Use 2 or more operations to create a question. | Show how 2 different rectangles with the same perimeter can have different areas. | What is the probability of selecting a red tile from a bag of 5 red, 3 blue and 6 yellow tiles? Express in a fraction. | What time would it be on a 24-hour clock if it was 5:45 pm? |
| If you toss a coin 6 times or 100 times, will the probability of the coin landing tails change? Explain your reasoning. | In a probability experiment, do you think the number of trials changes the outcome? Tell why you think this. | Create a picture entirely from triangles. | What unit of measure would you use to estimate the perimeter of your room, a dog pen, school yard, park? | What have you loved most about Math this year? |

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