Get ready for Eighth Grade!

In Grade 7, instructional time in math focused on four critical areas:

Critical Area One
Developing understanding of and applying proportional relationships

Critical Area Two
Developing understanding of operations with rational numbers and working with expressions and linear equations
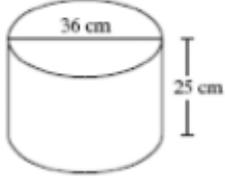
Critical Area Three
Solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume

Critical Area Four
Drawing inferences about populations based on samples

The following summer math activities will enable your child to review math concepts and reinforce skills learned this year. Just a few minutes each day spent "thinking and talking math" will help reinforce the math that has been learned and begin to bridge the foundation for extending to the concepts that will be developed next year. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. While your child is working, discuss the math concept being reinforced.

Sun.	Monday	Tuesday	Wednesday	Thursday	Friday	Sat.
	1 Make a list of all the prime numbers between 50 and 75.	2 Do the following points represent a point on the graph of y=x-4? (0, –4) (5,–1)	3 Mike pours 4/9 liter of milk equally into four mugs. How much milk is in each mug?	4 In which quadrant(s) could the following points be found? A B C (5, 3) (5, –3) (–5, –3)	5 Which is the better price? a. 4 for $0.89 b. 6 for $1.39	6
7	8 Add: 2 + (–3) = (–2) + (–3) = (–2) + 3 =	9. Find the area of a circle if the diameter is 20 meters.	10 Twice a number (n) minus nine is ninety- five. Find the number (n).	11 If the product of 6 integers is negative, at most how many of the integers can be negative?	12 Write an expression for the sequence of operations. Add 3 to x, subtract the result from 1, then double what you have.	13
14	15 Bob works hours 7 ½ hours per day and is paid $7 per hour. He works five days a week. How much money does he earn in 7 weeks?	16 A circle has a circumference of 28π centimeters (cm). What is the area, in cm, of this circle? Show all work necessary to justify your response.	17 Mia's cell phone plan: $15 a month plus free texts plus $0.20 per minute of call time. Mia made 30 minutes of calls this month, and 110 texts. How much does she have to pay?	18. A menu has these options for sandwiches: 3 types of bread, 4 meat choices, 5 topping choices. How many possible sandwiches can be made? Can you create a different menu with the same outcome?	19 The pages of a book are numbered consecutively from 1 to 275. How many times is the digit 8 used in numbering the pages?	20
21	22 There are three choices of jellybeans: grape, cherry and orange. If the probability of getting a grape is 3/10 and the probability of getting cherry is 1/5, what is the probability of getting orange?	23 Joe has an 80:1 scale-drawing of the floor plan of his house. On the floor plan, the dimensions of his rectangular living room are 1 7/8 inches by 2 1/2 inches. What is the area of living room in square feet?	24 Dan's weekly salary is $70 less than Jerry's, whose weekly salary is $50 more than Sally's. If Sally earns $280 per week, how much does Dan earn per week?	25. Solve: Can a triangle have more than one obtuse angle? Will three sides of any length create a triangle?	26 Using a grocery store receipt, figure what percentage of the bill was spent on vegetables, meat, drinks, junk food .	27
28	29. 30 While on vacation, a group can rent bicycles and scooters by the week. They get a reduced rental rate if they rent 5 bicycles for every 2 scooters rented. The reduced rate per bicycle is $15.50 per week and the reduced rate per scooter is $160 per week. The sales tax on each rental is 12%. The group has $1600 available to spend on bicycle and scooter rentals. What is the greatest number of bicycles and the greatest number of scooters the group can rent if the ratio of bicycles to scooters is 5:2?					

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			1 Choose a favorite professional athlete and research his/her annual salary. How much does s/he earn in a month? A day?	**2** Calculate: 7x8= (–7) x 8 = (–7) x (–8) = Provide mathematical models to verify your results (i.e. number lines, +/– counters, verbal)	**3** Using a receipt, find the mean, median, and mode of the prices of the items on the receipt from a store (grocery, clothing …)	**4**
5	**6** Dan's salary is $70 less than Sam's, whose weekly salary is $50 more than Jen's. If Jen earns $280 per week, how much money does Dan earn per week?	**7** Dave buys 2 pineapples and some bananas. One pineapple is $2.99. Bananas are $0.67 per lb. He wants to spend less than $10.00. Write an inequality that represents the number of pounds of bananas, b, he can buy.	**8** A scale drawing for a construction project uses a scale of 1 inch = 4 feet. The dimensions of the rectangular family room on the scale drawing are 7.5 inches by 12 inches. What will be the actual area of the floor of the family room after the construction project is completed? Include your work.	**9** When John bought his new computer, he purchased an online computer help service. The help service has a yearly fee of $25.50 and a $10.50 charge for each help session a person uses. If John can only spend $170 for the computer help this year, what is the maximum number of help sessions he can use this year?	**10** Find the Volume: 36 cm, 25 cm	**11**
12	**13** If 4 out of 7 students at Johnson High play sports, about how many of the 504 students at the school play sports?	**14** m∠A=13° and m∠B=77° Are the angles complementary? Explain your reasoning.	**15.** George's weekly pay rate is $455 per week. He receives a 20% raise. What is his new weekly wage rate?	**16** A contractor pours a sidewalk that is 4 cm deep, 36 cm wide and 720 cm long. How many cubic meters of concrete will be needed?	**17** In the following equation, a and b are both integers, find their value: a(3 x −8) = b−18x	**18**
19	**20** On your birthday, 4/7 of your birthday cake was eaten. The next day, your dad ate half of what was left. You get to finish the cake for dessert. How much of the original cake did you get to eat?	**21** Two radio stations are playing the number-one hit song. WBCU plays the song every 24 minutes. WFSC plays the song every 9 minutes. Both stations play the song at 1:30 PM. When is the next time the stations will play the song at the same time?	**22** At Joe's Pizzeria, each pizza cost 11¢ per square inch. Joe's Pizzeria makes a 12 inch square pizza and a round pizza with a diameter of 12 inch. Which pizza is more expensive? How much more expensive is it?	**23** John bought a skateboard that originally cost $375. He used a coupon for 25% off. If he paid 6% sales tax, how much did he spend on the skateboard?	**24** Linda had $10 in her bank. On her birthday, 5 relatives sent her money as a birthday gift. Each relative sent the same amount. She then had $115. How much money did Linda receive from each relative?	**25**
26	**27** If a person rolls two number cubes, what is the probability of getting five as a sum?	**28** The Acme storage facility measures 450 m by 300 m. If 65% of the floor space is covered, how many square meters are not covered?	**29** LCM (5, 10) = LCM (8, 12) =	**30** Complete the pattern: {3, 7, 11, 15,___, ___, ___}	**31** If 1,000 gumballs cost $20, how much would ten gumballs cost?	

Great Books to Read

Evil Genius by Catherine Jinks
Forever Changes by Brendan Halpin
Geek Abroad by Piper Banks
All of the Above by Shelley Pearsall
Hannah Divided by Adele Griffin
A Higher Geometry by Sharelle Byars Moranville
Guinness Book of Records by Time Inc
Mathematicians are People Too by Luetta Reimer & Wilbert Reimer