



# PUMA MATH CONTEST 2017

## MATH CONTEST – Model Paper 2017

Grade 5

Duration: 2 Hours.

Student's Index Number: \_\_\_\_\_

### Instructions

1. Do not open the contest booklet until you are told to do so.
2. Electronic devices (Calculators, mobile phone ..) are not permitted
3. Please use pen to write the answer.
4. You may use rulers, compasses and paper for rough work.
5. When your supervisor instructs you to start, you will have 2 hours of working time.
6. Scoring: Total 100 points; three are three parts, Part A. is worth 45 Marks, Part B, is worth 30 Marks and Part C, is worth 25 marks.

#### FOR MORE INFORMATION:

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**Grade 5 Math Contest - Total of 100 points**

**Part A: Each correct answer is worth 1 point [Total of 45 points]**

1. Add or Subtract :

a)  $2.119 + 5.092 =$

b)  $13.43 + 1.093 =$

c)  $12.798 + 4.09 + 3.01 =$

d)  $119.798 + 114.09 + 13.0991 =$

e)  $12.980 - 3.099 =$

f)  $12.980 - 3.099 - 0.103 =$

g)  $2.119 + 5.092 - 2.095 =$

h)  $34.981 - 24.092 - 2.119 =$

i)  $34.981 + 24.092 + 2.119 + 12.091 =$

j)  $34.981 - 24.092 + 2.119 - 2.091 =$

2. Multiply or Divide :

a)  $15 \times 12 =$

b)  $21 \times 17 =$

c)  $1.1 \times 12 =$

d)  $1.5 \times 1.5 =$

e)  $35.5 \times 10 =$

f)  $200 \div 15 =$

g)  $4896 \div 16 =$

h)  $48 \div 1.6 =$

i)  $4896 \div 1.6 =$

j)  $22.5 \div 1.5 =$

3. A) Compare the fractions using  $<$ ,  $=$ , or  $>$ . (Write the appropriate sign in the blank).

a)  $\frac{1}{2}$  —  $\frac{6}{18}$

b)  $\frac{3}{7}$  —  $\frac{6}{15}$

c)  $\frac{1}{9}$  —  $\frac{6}{11}$

d)  $\frac{1}{3}$  —  $\frac{4}{9}$

e)  $\frac{1}{9}$  —  $\frac{11}{99}$

B) Write each of the following as a decimal.

a) fifty-seven hundredths

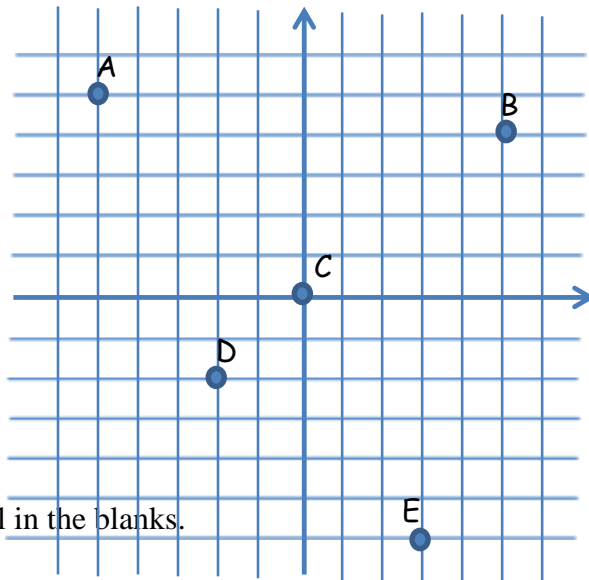
b) eight and thirteen hundredths

c) two and seven tenths

d) sixteen hundredths

e) twenty-nine and ninety-one hundredths

4. Each jellybean has a letter on the grid. Write the coordinate pair with the letter of the jellybean on the grid.



**A =**

**B =**

**C =**

**D =**

**E =**

5. A) Fill in the blanks.

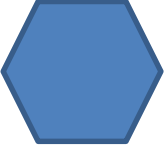


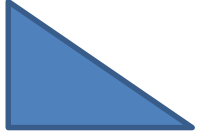
- a) 4, 7,  $\frac{1}{2}$ , 13,  $\frac{1}{2}$ , 19, 22
- b) 64, 32,  $\frac{1}{2}$ , 8,  $\frac{1}{2}$ , 2, 1
- c) 623, 618,  $\frac{1}{2}$ , 608,  $\frac{1}{2}$ , 598, 593
- d)  $\frac{1}{2}$ ,  $\frac{1}{2}$ , 17, 21, 20, 24, 23, 27
- e) 1,  $\frac{1}{2}$ , 2, 2.5, 3, 3.5,  $\frac{1}{2}$

B) State whether each is primary or secondary data.

- a) number of toys you have
- b) average number of immigrants in the year 2002
- c) Are there more babies born in the summer or winter?
- d) number of pizza slices you can eat during lunch hour
- e) world record for number of hot dogs eaten in a minute

**Part B: Each correct answer is worth 3 points [Total of 30 points]**

- 6. How many boxes hold 104 000 sheets of transparency, if one box holds 8 packages of paper, and one package of paper contains 500 sheets of paper?
- 7. What is the greatest positive integer that can divide 12, 33, and 84?
- 8. What is the smallest positive integer that can be divided by 12, 16, and 24?
- 9. You roll a fair die. What is the probability that you roll an odd number between 2 and 5? Express your answer as a fraction and decimal.
- 10. If a car takes 9.5 hours to travel 1092.5 km, how long does it take to travel 143.75 km?
- 11. Sonali and Alan had \$85 in total. They both went to a gemstone corner store. Sonali bought eight cans of each of three different kinds of energy drinks for her siblings. One kind cost \$2.25, the second kind \$2.64, and the third kind \$2.79. How much money did she need to borrow from her friend Alan if she had \$40.00 in her pocket?
- 12. Complete the chart below.

Regular Polygon				
Number of Sides				
Number of Lines of Symmetry				
Name of the Polygon				

13. Draw three new different (DO NOT COPY THE SHAPES FROM QUESTION 8) shapes which are polygons and three different shapes which are not polygons.

14. Chau's dad gets paid \$12 for normal work and  $1\frac{1}{2}$  times of normal hourly pay for overtime. Last month, he worked 160 hours normal work and 55 hours overtime. How much was his total paycheck? Show your steps.

15. There are 21 marbles in a bag. All are red, magenta or yellow. The probability of picking a yellow marble is  $\frac{1}{7}$ . The probability of picking a magenta marble is  $\frac{1}{3}$ .

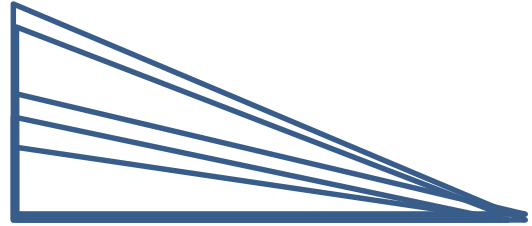
a) What is the probability of picking a red or yellow marble?

b) What is the probability of picking a red marble?

c) After picking three red marbles, you set it aside. What is the probability of picking yellow marble?

**Part C: Each correct answer is worth 5 points [Total of 25 points]**

16. How many triangles are here?



17. Latah cuts a piece of rope into quarters. She then cuts one of the pieces to half. The two smallest pieces are 5 cm long. What was the length of the rope before Latah made any cuts? Show your steps.

18. Samantha's school assembly takes place in her school auditorium, and the auditorium is 80% full. There are 190 students and 7 teachers, one principal and two custodians are at the assembly. How many empty seats are there? Show your steps.

19. Joss estimates that  $\frac{2}{5}$  of the students in her school walk to school. A survey of her class reveals that 0.39 of her classmates walk to school. Is the fraction of students walk to school in Joss's class greater or smaller than the fraction of students walk to school in her entire school? Justify your answer.

20. The perimeter of rectangle A is 30 cm. The length of the rectangle A is more than the triple the width. If the area of square B is nine times the area of rectangle A, what is the perimeter of square B? Show your steps.