

QUESTION PAPER

PAKISTAN MATHS CONTEST JUVENILES (GRADE 7 & 8)

TIME ALLOWED: 90 MINUTES

MAXIMUM MARKS: 90

TOTAL QUESTIONS: 30 MCQS

INSTRUCTIONS

1. DON'T OPEN THIS BOOKLET UNTIL INSTRUCTED.
2. WRITE YOUR NAME, FATHER NAME, SCHOOL ETC AT THE BUBBLE SHEET ONLY.
3. RECORD ALL ANSWERS ON THE BUBBLE SHEET ONLY.
4. SELECT BEST ANSWER FROM THE FOUR GIVEN OPTIONS AND MARK ONLY ONE OPTION IN EACH QUESTION.
5. USE BLUE / BLACK INK TO FILL UP THE CIRCLES FOR YOUR ANSWERS ON THE BUBBLE SHEET.
6. USE OF ANY HELPING MATERIAL INCLUDING CELL PHONES AND ELECTRONIC DEVICES IS STRICTLY PROHIBITED.
7. EVERY CORRECT ANSWER EARNS THREE POINTS.
8. ONE POINT WOULD BE DEDUCTED FOR EVERY INCORRECT ANSWER.



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Q1. Which of the following rational numbers are negative?

- a. $(-3)/7$
 - b. $(-5)/-8$
 - c. $9/(-83)$
 - d. $(-115)/-197$
-

Q2. Patrick got to compete in the bonus round of a game show, scoring 400 points on the technology questions and 100 points on the pop culture questions. What was his score for the bonus round?

- a. -400
 - b. 400
 - c. -500
 - d. 500
-

Q3. $20 \times (0+6) - (20 \times 0) + 6 =$

- a. 106
 - b. 114
 - c. 126
 - d. 12
-

Q4. What is the value of n in the equation below?

$$2n+1=21$$

- a. 10
 - b. 11
 - c. 18
 - d. 20
-

Q5. Joe draws Flat shape with four equal straight sides to obtain a geometric figure looking like a diamond. Then this figure is surely a

- a. Rhombus
 - b. Square
 - c. Parallelogram
 - d. Star
-

Q6. Which of the following calculations gives the largest result?

- a. 44×777
 - b. 55×666
 - c. 77×444
 - d. 88×333
-

Q7. Zoe starting playing video games as soon as she got home from school. She played video games for 1 hour and 15 minutes. Then, it took Zoe 45 minutes to finish her homework. When Zoe finished her homework, it was 4:30 P.M. What time did Zoe get home from school?

- a. 1:00 P.M.
 - b. 1:30 P.M.
 - c. 2:00 P.M.
 - d. 2:30 P.M.
-

Q8. A car is traveling 75 kilometers per hour. How many meters does the car travel in 5 minutes?

- a. 5.50 KM
 - b. 6.25 KM
 - c. 7.50 KM
 - d. 8.25 KM
-

Q9. Derek has 12 shirts in his closet. If 2 out of every 3 of these shirts are striped, how many striped shirts does Derek have in his closet?

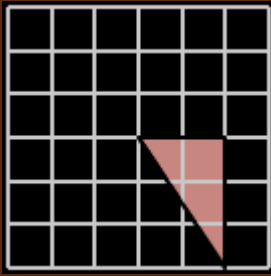
- a. 2
 - b. 8
 - c. 11
 - d. 18
-

Q10. Which sign makes the statement true?

$$0.57 \text{ ? } 57\%$$

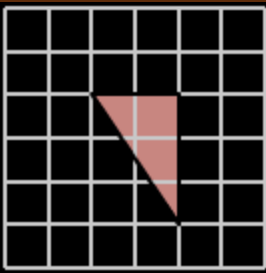
- a. >
 - b. <
 - c. =
 - d. >=
-

Q11. Look at this shape:

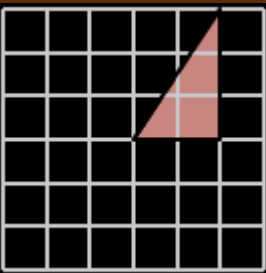


Which image shows a reflection?

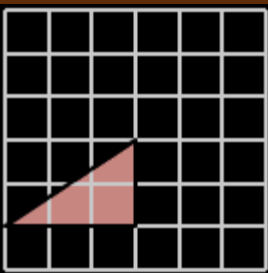
a.



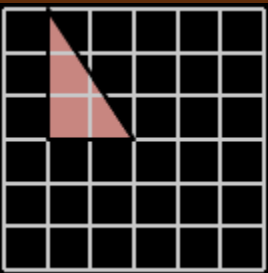
b.



c.



d.



Q12. A store bought a swing set and marked it up 100% from the original cost of \$60. Later on, Ronnie purchased the swing set and paid 15% sales tax. How much, including tax, did he pay for the swing set?

- a. 115
- b. 128
- c. 138
- d. 145

Q13. Evan went on a shopping trip to Lakewood. He purchased a quilt originally priced at \$40 but discounted 50%. If sales tax in Lakewood is 10%, what was the total cost?

- a. \$22
- b. \$24
- c. \$25
- d. \$29

Q14. In Karen's toy bin there are 12 red blocks. There are 14 more yellow blocks than red blocks. There are also 10 more blue blocks than red blocks. How many blocks are there in all?

- a. 58
- b. 60
- c. 62
- d. 64

Q15. Franklin is planting flowers in his garden. He plants 2 flowers in the first row, 6 flowers in the second row, 24 flowers in the third row, and 120 flowers in the fourth row. What kind of sequence is this?

- a. arithmetic
- b. geometric
- c. both
- d. neither

Q16. What value of b makes this addition sentence true?

$$56 = 56 + b$$

Hint: Use properties of addition.

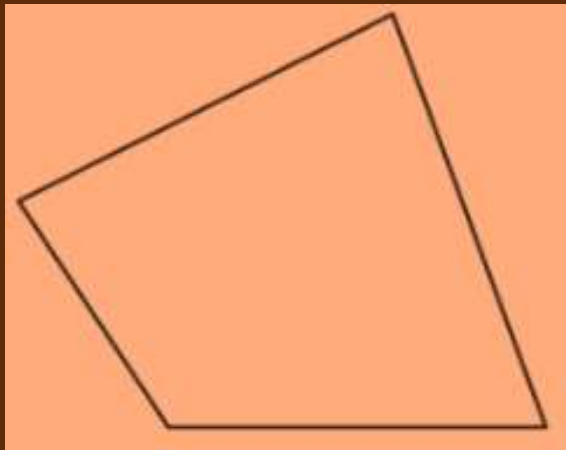
- a. 56
- b. 0
- c. 28
- d. Information is incomplete

Q17. What value of y is a solution to this equation?

$$y-5=6$$

- a. 11
 - b. 12
 - c. 13
 - d. 14
-

Q18. What is the sum of the angle measures in this shape?

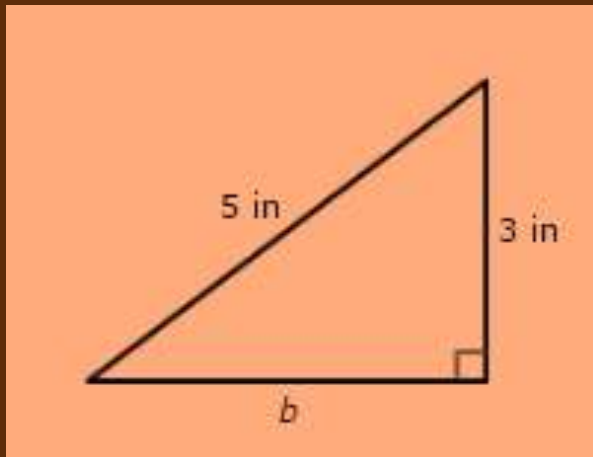


- a. 90
 - b. 180
 - c. 270
 - d. 360
-

Q19. Which expression is equivalent to $2(n+7)$?

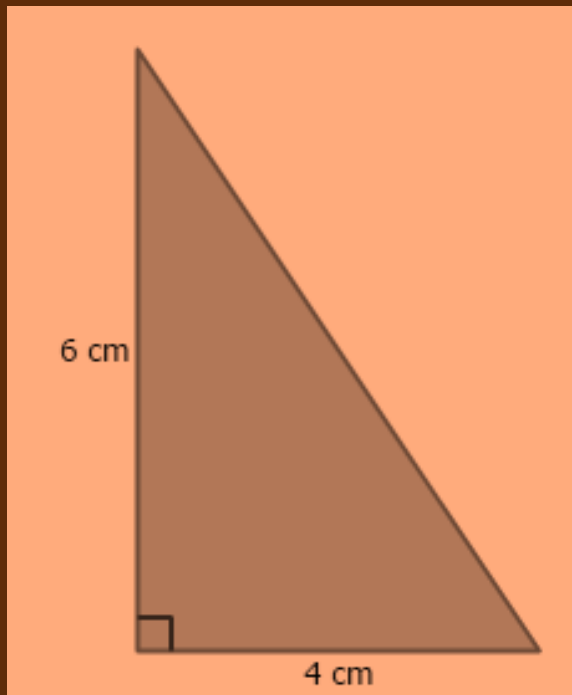
- a. $14n+2$
 - b. $2n+14$
 - c. $14n$
 - d. $9n$
-

Q20. What is the length of the missing leg?



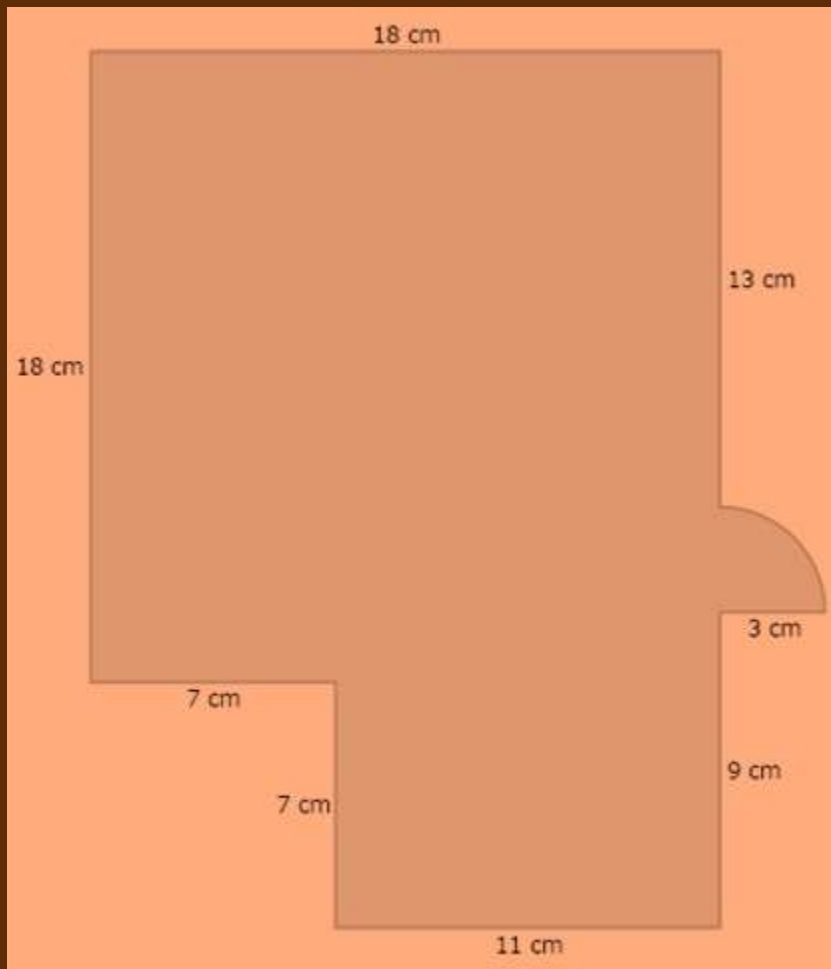
- a. 3 inches
- b. 4 inches
- c. 5 inches
- d. 6 inches

Q21. What is the area?



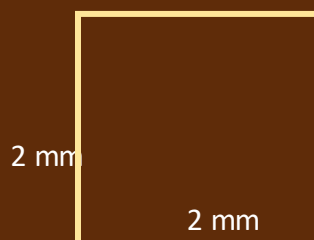
- a. 24 cm
- b. 18 cm
- c. 12 cm
- d. 6 cm

Q22. What is the area of this figure?



- a. 308.645 square centimetres
- b. 408.065 square centimetres
- c. 508.065 square centimetres
- d. 608.065 square centimetres

Q23. If the side lengths are tripled, then which of the following statements about its perimeter will be true?



- a. The new perimeter will be $\frac{1}{2}$ of the old perimeter.
- b. The new perimeter will be 3 times the old perimeter.
- c. The new perimeter will be 2 times the old perimeter.
- d. The new perimeter will be 4 times the old perimeter.

Q24. Rita is making a piece of toast. There are 7 kinds of bread in the house, and the toaster has 2 settings, from very light to very dark. How many different ways can Rita make toast?

- a. 5
 - b. 7
 - c. 9
 - d. 14
-

Q25. Vera is a tour guide who gives several tours over the course of a morning shift and an evening shift. Her morning shift tours are given to groups of 4 people while her evening shift tours are given to groups of 3 people. If the total number of tourists in the morning shift is the same as the total number of tourists in the evening shift, what is the minimum number of tourists that Vera guides in each shift?

- a. 5 tourists
 - b. 7 tourists
 - c. 10 tourists
 - d. 12 tourists
-

Q26. Terrell took a total of 8 pages of notes during 2 hours of class. Then, later in the year, he took 16 pages of notes during 4 hours of class. How many pages of notes does Terrell take during an hour of class?

- a. 2 pages
 - b. 4 pages
 - c. 6 pages
 - d. 8 pages
-

Q27. Nick is sorting pencils into boxes. He put 48 pencils in the first box, 60 pencils in the second box, 72 pencils in the third box, and 84 pencils in the fourth box. If this pattern continues, how many pencils will Nick put in the fifth box?

- a. 92
 - b. 94
 - c. 96
 - d. 98
-

Q28. Jeanette learns 2 new appetizer recipes during each week of culinary school. After how many weeks of culinary school will Jeanette know a total of 42 appetizer recipes?

- a. 8 weeks
 - a. 11 weeks
 - b. 21 weeks
 - c. 26 weeks
-

Q29. Burlington City Diner is introducing a new dessert menu, which includes apple crisp, fudge, cupcakes, and oatmeal cookies. In how many different orders could the desserts be listed on the menu?

- a. 12 orders
 - b. 16 orders
 - c. 24 orders
 - d. 30 orders
-

Q30. What is the answer?

$3P_2$

- a. 2
 - b. 3
 - c. 5
 - d. 6
-



PAKISTAN OFFICE

International CATS Contests

Suite # S-5, 2nd Floor, Zainab Tower, 9-11, B-Block Commercial, Architect Society, Lahore.

Ph. +92 423 513 2277 Cell. +92 332 513 2277

www.catscontests.org

UAE OFFICE

International CATS Contests Tourist Club, Abu Dhabi, UAE.

Ph. +971 2 6810335

Cell: +971 55 1344501

www.catscontests.org