NEW AL WUROOD INTERNATIONAL SCHOOL, JEDDAH,K.S.A

Affiliated to CBSE – New Delhi

WORK SHEET- 2

GRADE: 6

ANNUAL EXAM, 2018-19

SUBJECT: MATHEMATICS

Block-21 Introduction to Algebra

1. Look at the pattern formed using toothpicks.
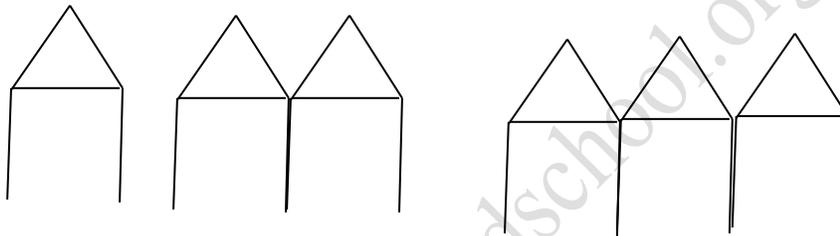
What is the rule for the following pattern?

2. Denis fits tyres on cars for a car company. (Assume 1 car has 4 tyres)

   a. If there are 12 cars, how many tyres will he fit in all?

   b. What is the rule to determine the number of tyres he will fit, given the number of cars?

   c. How many tyres will he fit on 100 cars?

3. Priya formed a rule 5a-4 for a pattern. Can you guess the first 5 numbers of the pattern?

4. Find the next 3 numbers in the pattern by identifying the rule.
   7, 12, 17, --------

5. Milan has formed a rule 2x-2 for a pattern.

   a. Identify the pattern for which he formed a rule. Make a table to find the answer.

   b. Raj thinks this rule makes the same pattern as 2x? Is he correct? Explain your answer.

Block-23 Ratio

6. Mr. Khan wants to divide Rs 2,50,000 between his two children, Sana and Fatima, in the ratio 4:6 respectively. What will the share for each child be?

7. Find the equivalent ratios as indicated.

   a.24kg: 3kg is equivalent to -----:1b. 5km: 120m is equivalent to ----: ----
   c.10m: 35cm is equivalent to -----:7   d. 24cm: 400m is equivalent to ----:---

8. Two numbers are in the ratio 8:9. If the sum of the numbers is 153,find the Numbers.

9. Amit's and his sister's ages are in the ratio 5: 4. If Amit is 45 years old, how old is his sister?

10. A bag contains tomatoes, potatoes and onions in the ratio 6: 9: 5. If the weight of these vegetables in the bag is 2kg, find the weight of each one of them.

Block-28 Construction of Line Segments

11. Construct a line segment of length 6 cm and then a perpendicular bisector on it.

12. Draw a line segment AB of length 4.6cm. Mark a point C on the line segment AB such that the length of AC is 2.7 cm. Measure the length of the line segment CB.

13. Draw the perpendicular bisector of a line segment XY whose length is 11.2cm.
    (1) Take any point P on the right bisector drawn. Examine whether PX=PY.
    (2) If M is the midpoint of XY, what relation is there between the lengths MX and XY?

14. Draw any line segment PQ and take a point M on it .Using compass, construct a Perpendicular MN on it. Check by using a protractor whether angle PMN=90°.

15. Draw a line LM and take a point P not lying on it. Using compass, construct a perpendicular from P to line LM.

Block- 29 Circles

16. Construct a circle and label its sector, segment, chord and radius.

17. Mili draws a circle of radius 6 cm. If she increases the radius by 10cm, what would be the approximate length of the circumference of the circle?

18. Rama wants to put a fence through the centre of his circular garden to divide it into 2 equal halves. He put a fence measuring 50m from the edge of the garden to its Centre point. What is the total length of fence needed to divide the garden?

19. Construct a line segment of length 5cm. Draw 2 circles of radii 3cm, one on each of the end points.

20. The radius of the inner circle is 5cm and the distance between the inner and outer circle is 4cm. Find the radius of the outer circle?

Block-30 Angle Constructions

21. Draw a circle and construct an angle of 15°inside it.

22. Construct an angle of any measure less than a right angle and then construct its angle bisector.

23. Construct an angle of the given measures using a protractor.
    (a) 155°   (b) 83°   (c) 110°

24. Construct 2 angles of measure 45° and 135° from the same point. What angle do you get?

25. Draw a triangle and an angle bisector to all the three angles of the triangle.

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