Grade 6 Algebra Worksheets

Grade 6 Maths Algebra Multiple Choice Questions (MCQs)

1. **Number of matchsticks required to make a pattern of "T":**
(a) 5
(b) 2
(c) 3
(d) 4
2. **Number of matchsticks required to make a pattern of "U":**
(a) 5
(b) 2
(c) 3
(d) 4
3. **Number of matchsticks required to make a pattern of "Z":**
(a) 5
(b) 2
(c) 3
(d) 4
4. **Number of matchsticks required to make a pattern of "A":**
(a) 5
(b) 6
(c) 3
(d) 4
5. **Perimeter of the square, whose each side is 'n' cm is:**
(a) n + 4
(b) 4n
(c) n – 4
(d) $\frac{n}{4}$
6. **Perimeter of an equilateral triangle, whose each side is 'X' unit is:**
(a) 3x
(b) 3 – x
(c) $\frac{3}{x}$
(d) 3 + x
7. **Diameter of circle whose radius is 'r' is:**
(a) $\frac{r}{2}$
(b) 2r
(c) 2 – r
(d) 2 + r
8. **x + y = y + x is**
(a) Commutative property
(b) Associative property

(c) Closure property
(d) Distributive property

9. **How many variables are used in the expression 2x + 3y + 5?**
(a) 1
(b) 2
(c) 3
(d) 5

10. **The expression for the statement: "y multiplied by 10 and then 7 added to product".**
(a) 10 + y + 7
(b) 7y + 10
(c) 10y + 7
(d) 10y

11. **What is the statement for the expression 2y – 9?**
(a) 2y subtracted from 9
(b) 9 subtracted from 2y
(c) 9 subtracted from 9
(d) thrice of y minus 9

12. **p = 3 is a solution of equation:**
(a) 2p + 5 = 17
(b) 5p + 2 = 17
(c) 2p + 17 = 5
(d) 5p + 17 = 2

13. **The equation for the statement: one fourth of a number minus 4 gives 4.**
(a) 4x – 4 = 4
(b) $\frac{4}{x}$ – 4 = 4
(c) $\frac{1}{4}$ x – 4 = 4
(d) x – 4 = $\frac{1}{4}$

14. **a × (b + c) = a × b + a × c is**
(a) Commutative property under addition
(b) Associative property under multiplication
(c) Distributive property of multiplication over addition
(d) Closure property

15. **Which of the following is an equation?**
(a) x – 3 > 0
(b) x + 3 < 0
(c) x
(d) x + 3 = 0

16. **The value of variable in the expression is:**
(a) fixed
(b) not fixed
(c) zero
(d) one

17. **The value of p – q + pq for p = -1, q = -2 is:**
(a) 0
(b) 1

(c) -5
(d) 3
18. **Write the statements "If you subtract 5 from 6 times a number, you get 7." in the form of equations:**
(a) 6x – 5 = 7
(b) 5x – 6 = 7
(c) x – 5 = 7
(d) x – 6 = 7
19. **Which is a solution of the equation 3x – 14 = 4?**
(a) x = 2
(b) x
(c) x = 4
(d) x = 6
20. **Write the statements "If you take away 6 from 6 times a number, you get 60" in the form of equations:**
(a) 6x + 6 = 60
(b) 6x – 6 = 60
(c) x – 6 = 60
(d) none of these

Class 6 Maths Algebra Fill In The Blanks

1. The distance (in km) travelled in h hours at a constant speed of 40km per hour is ……..
.
2. 'x ' exceeds y by 7 can be expressed as ……. .
3. The number of days in w weeks is ……. .
4. r rupees = …… paise.
5. If 7x + 4 = 25, then the value of x is …… .

Class 6 Maths Algebra Very Short Answer Type Questions

1. The price of 1 pen is ₹ 15 and price of 1 pencil is ₹ 5. Write an expression for the total amount payable for buying x pens and y pencils.
2. The side of a square is x. Express the perimeter of the square using x.
3. If the radius of circle is denoted by r, express its diameter in terms of r.
4. Express the associative property of addition of whole numbers using the variables x, y and z.
5. Give an expression for each of the following:
(a) The sum of b and 9
(b) Subtract 4 from x
(c) Multiply 5 by y
(d) 3 more than four times a number y.
(e) One-fifth of x added to the sum of a and b.
6. If x = 3, evaluate
(a) 2x = …….
(b) 2x + 3 = …….
(c) 3x – 2 = ……

7. If x = 3, y = -1, evaluate
(a) 2x + y = ……
(b) 3x – y = …….
(c) 3x + 2y = …….

Class 6 Maths Algebra Short Answer Type Questions

1. Complete the table and by inspection find the solution to the respective equations:
(a) m + 6 = 10

m	1	2	3	4	5	6	7	8	9
m+6									

(b) 2m – 5 = -1

m	1	2	3	–2
2m–5				

2. One fourth of a number is 8. Find the number.
3. Three times a number is 21. Find the number.
4. Which of the following are equations?
(a) 2x + 7 > 3x
(b) 3m < 15
(c) 5x + 2 = 12
(d) z + 13 < 16

Class 6 Maths Algebra Long Answer Type Questions

1. Pick out the solution from the values given in the bracket.
(a) p + 12 = 17(2, 5, 6, 8)
(b) $\frac{z}{7}$ = 2 (10, 11, 13, 14)
(c) r – 5 = 3 (2, 8, 7, 5)
2. Mother has made laddus. She gives some laddus to guests and family members; still 5 laddus remain. If the number of laddus mother gave away is l, how many laddus did she make?
3. A bus travels at v km per hour. It is going from Daspur to Beespur. After the bus has travelled 5 hours, Beespur is still 20 km away. What is the distance from Daspur to Beespur? Express it using v.