Teacher Name: Ambreen Badar Class: 8 Subject: Mathematics

**SUMMER VACATION HOME WORK**

Q1: Fill in the blanks:

1. -6(3x + 2) = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
2. Equation of x – axis is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
3. If (a + 5)(a - 7) = 0, then a = \_\_\_\_\_ or a = \_\_\_\_\_\_\_\_.
4. Simplified form of $\frac{4x^{3}}{2x^{2}}$ is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. The gradient of straight line 7y = 4x + 5 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. If x is the subject of formula 2y = x + 5, then x = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. Equation of a line passing through the points (2,7), (0,7), (7,7), (-7,7) is \_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Factors of 9y2 – 169x2 are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. LCM of x2 – 36, x-6 and x + 6 is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. On a map a length is represented by 16cm. If the scale used is 1cm to 5km, then what is the actual length? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Ahmed can walk at a speed of 6 km/hr. \_\_\_\_\_\_\_\_\_\_\_km he can travel in 30 minutes.
12. The R.F of a scale 2m: 100km is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. 2.25 hours = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ minutes.
14. Each exterior angle of an equilateral triangle is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
15. A clock slows by 350 seconds in one week. How many seconds will it lose in 10 days? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
16. Factorize a3- 4ab2 = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
17. If the arrival time is 21 35 and the departure time is 17 55, then the journey time is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
18. In expansion of (x - 4)(x + 3) the middle term will be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
19. What is the value of the expression (x - 2)(x + 4) when x = -1 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Q2: a) Expand and simplify (a - 3)(a + 4)

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b) Evaluate: 903 × 897

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c) Find the product of (x - 2)(x2 -3x -4)

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d) Make ‘p’ the subject of formula q = $\frac{3-2p}{s}$

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e) Solve $\frac{6}{2a-3}= \frac{4}{a-5}$

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f) Factorize: 3xy + 2y – 12x – 8

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g) Factorize: (x - 3)2 – 25y2

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h) On a scale drawing the height of the tower is 54 cm. The actual height of the tower is 108m.

 What is the scale used?
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1. A map is drawn to a scale of 2cm to 50 km. What distance does 4cm on the map represent on the ground?

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