

8 CLASS MATH TUITION ASSIGNMENT

Assignment – 14

Chapter = Factorisation

MM = 20

Q1. Factorize each of the following expressions:

- (i) $qr - pr + qs - ps$
- (ii) $xa^2 + xb^2 - ya^2 - yb^2$

Q2. Factorise the following expressions.

- (a) $54m^3n + 81m^4n^2$
- (b) $15x^2y^3z + 25x^3y^2z + 35x^2y^2z^2$

Q3Factorise:

- (a) $14m^5n^4p^2 - 42m^7n^3p^7 - 70m^6n^4p^3$
- (b) $2a^2(b^2 - c^2) + b^2(2c^2 - 2a^2) + 2c^2(a^2 - b^2)$

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Q4. Evaluate the following divisions:

(a) $(3b - 6a) \div (30a - 15b)$

(b) $(4x^2 - 100) \div 6(x + 5)$

Q5. Simplify the following expressions:

(a)
$$\frac{(x-1)(x-2)(x^2-9x+14)}{(x-7)(x^2-3x+2)}$$

(b)
$$\frac{(x^2-8x+12)(x^2-16)}{(x^2-36)(x^2-4)}$$

Q6. Factorise the given expressions and divide that as indicated.

(a) $39n^3(50n^2 - 98) \div 26n^2(5n - 7)$

(b) $44(p^4 - 5p^3 - 24p^2) \div 11p(p - 8)$

Q7. Factorize each of the following algebraic expressions:

$x^2 + 12x - 45$

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Q8. . Factorize each of the following algebraic expressions: $40 + 3x - x^2$

Q9. . Factorize each of the following algebraic expressions: $x^2 + 14x + 45$

Q10. . Factorize each of the following algebraic expressions: $x^2 - 22x + 120$