

EduSahara™ Learning Center Assignment**Grade : Class IX, CBSE****Chapter : Polynomials****Name : Remainder Theorem**

1. The remainder when $2s$ is divided by 9 is

(i) 2 (ii) (-2) (iii) 0 (iv) 1 (v) (-1)

2. The remainder when $2j^2$ is divided by $(j + 8)$ is

(i) 129 (ii) 131 (iii) 127 (iv) 128 (v) 126

3. The remainder when $(5d + 1)$ is divided by $(d + 8)$ is

(i) (-38) (ii) (-40) (iii) (-42) (iv) (-37) (v) (-39)

4. The remainder when $(9y^2 + 5y)$ is divided by $(y - 3)$ is

(i) 97 (ii) 99 (iii) 95 (iv) 93 (v) 96

5. The remainder when $(6t^2 + 6t - 4)$ is divided by $(t - 8)$ is

(i) 431 (ii) 427 (iii) 429 (iv) 428 (v) 425

6. The remainder when $(2c^4 - 5c^3 + 4c^2 - 6c - 3)$ is divided by $(c^2 + 16c + 63)$ is

(i) $(-5193c - 29613)$ (ii) $(-5194c - 29613)$ (iii) $(-5197c - 29613)$
 (iv) $(-5195c - 29613)$ (v) $(-5196c - 29613)$

7. If 2 and $(-\frac{1}{2})$ are the zeros of the polynomial

$$f(x) = 4x^4 + ax^3 + bx^2 + 12x$$

$= x + x + x + \dots$, find the value of a and b

- (i) 15 , -17
 - (ii) -17 , 14
 - (iii) -18 , 14
 - (iv) 13 , -19
 - (v) -18 , 15
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8. If the polynomials $2x^2 + ax - 1$ and $ax^2 - 6x + 1$ leave the same remainder when divided by $(x + 2)$, find the value of a

- (i) (-2) (ii) 2 (iii) 0 (iv) (-1) (v) (-4)
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9. Which of the following are true ?

- a) If $p(a) = 0$, then $(x + a)$ perfectly divides $p(x)$
 - b) Division of a polynomial with another polynomial stops when the degree of the remainder equals the degree of the divisor
 - c) If the degree of $p(x)$ is less than the degree of $d(x)$, we should not divide $p(x)$ with $d(x)$
 - d) If $p(x)$ is divided by $(x - a)$, the remainder is $p(a)$
- (i) {a,b,c} (ii) {c,d} (iii) {a,d,c} (iv) {b,d} (v) {a,c}
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10. Find the remainder when $(4x^2 - 16x + 15)$ is divided by $(3x - 1)$

- (i) $\frac{89}{9}$ (ii) $\frac{31}{3}$ (iii) $\frac{71}{7}$ (iv) $\frac{91}{9}$ (v) $\frac{111}{11}$
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Assignment Key

- 1) (iii)
- 2) (iv)
- 3) (v)
- 4) (v)
- 5) (iv)
- 6) (iv)
- 7) (iii)
- 8) (iv)
- 9) (ii)
- 10) (iv)