

**EduSahara™ Learning Center Assignment**

**Grade** : Class VIII, ICSE  
**Chapter** : Fundamental Concepts  
**Name** : Polynomial Division  
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The quotient when  $9q$

1. is divided by  $(-4)$  is

(i)  $(-\frac{5}{2}q)$  (ii)  $(-\frac{7}{4}q)$  (iii)  $(-\frac{9}{4}q)$  (iv)  $(-\frac{13}{6}q)$  (v)  $(-\frac{11}{4}q)$

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The quotient when  $8y^2$

2. is divided by  $(y - 2)$  is

(i)  $(8y + 16)$  (ii)  $(7y + 16)$  (iii)  $(9y + 16)$   
(iv)  $(10y + 16)$  (v)  $(6y + 16)$

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The quotient when  $(-2d - 2)$

3. is divided by  $(d - 5)$  is

(i)  $(-1)$  (ii)  $1$  (iii)  $(-3)$  (iv)  $(-2)$  (v)  $(-4)$

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The quotient when  $(6s^2 - 8s - 3)$

4. is divided by  $(s + 3)$  is

(i)  $(7s - 26)$  (ii)  $(4s - 26)$  (iii)  $(6s - 26)$   
(iv)  $(8s - 26)$  (v)  $(5s - 26)$

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The quotient when  $(9j^2 + 2j)$

5. is divided by  $(j + 7)$  is

(i)  $(7j - 61)$  (ii)  $(9j - 61)$  (iii)  $(11j - 61)$   
(iv)  $(10j - 61)$  (v)  $(8j - 61)$

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6. The quotient when  $(6x^2 + 6x - 6)$   
is divided by  $(x + 2)$  is

- (i)  $(5x - 6)$  (ii)  $(7x - 6)$  (iii)  $(3x - 6)$   
(iv)  $(6x - 6)$  (v)  $(8x - 6)$
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7. The quotient when  $(2w^4 + 6w^3 - 7w^2 + 5w - 5)$   
is divided by  $(w^2 - 4w - 5)$  is

- (i)  $(14w + 59)$  (ii)  $(2w^2 + 14w + 59)$  (iii)  $(4w^2 + 14w + 59)$   
(iv)  $(3w^2 + 14w + 59)$  (v)  $(w^2 + 14w + 59)$
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8. The quotient when  $(3w^5 - 3w^4 + 4w^3 - 5w^2 - 9w + 5)$   
is divided by  $(w + 2)$  is

- (i)  $(4w^4 - 9w^3 + 22w^2 - 49w + 89)$   
(ii)  $(6w^4 - 9w^3 + 22w^2 - 49w + 89)$   
(iii)  $(3w^4 - 9w^3 + 22w^2 - 49w + 89)$   
(iv)  $(2w^4 - 9w^3 + 22w^2 - 49w + 89)$   
(v)  $(-9w^3 + 22w^2 - 49w + 89)$
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9. The remainder when  $(-8h)$   
is divided by 2 is

- (i) 0 (ii) 2 (iii)  $(-3)$  (iv) 1 (v)  $(-1)$
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10. The remainder when  $(-5q^2)$   
is divided by  $(q + 5)$  is

(i)  $(-126)$  (ii)  $(-124)$  (iii)  $(-128)$  (iv)  $(-125)$  (v)  $(-123)$

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11. The remainder when  $(-5e + 7)$   
is divided by  $(e - 2)$  is

(i)  $(-4)$  (ii)  $0$  (iii)  $(-6)$  (iv)  $(-3)$  (v)  $(-2)$

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12. The remainder when  $(-7p^2 - 9p)$   
is divided by  $(p - 9)$  is

(i)  $(-648)$  (ii)  $(-647)$  (iii)  $(-651)$  (iv)  $(-649)$  (v)  $(-646)$

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13. The remainder when  $(-4n^2 + 9n + 4)$   
is divided by  $(n + 7)$  is

(i)  $(-254)$  (ii)  $(-255)$  (iii)  $(-258)$  (iv)  $(-256)$  (v)  $(-253)$

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14. The remainder when  $(-k^3 - 6k^2 + k)$   
is divided by  $(k^2 - 5k - 6)$  is

(i)  $(-63k - 66)$  (ii)  $(-58k - 66)$  (iii)  $(-61k - 66)$   
(iv)  $(-60k - 66)$  (v)  $(-59k - 66)$

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15. The remainder when  $(3k^4 + 3k^3 - 2k^2 - 2k + 5)$   
is divided by  $(k^2 - 5k - 36)$  is

(i)  $(1629k + 7061)$  (ii)  $(1627k + 7061)$  (iii)  $(1624k + 7061)$   
(iv)  $(1625k + 7061)$  (v)  $(1626k + 7061)$

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16. The remainder when  $(-8c^4 - 4c^3 + 6c - 5)$   
is divided by  $(c^2 - 6c + 5)$  is

(i)  $(-1365c + 1355)$  (ii)  $(-1368c + 1355)$  (iii)  $(-1364c + 1355)$

(iv)  $(-1367c + 1355)$  (v)  $(-1366c + 1355)$

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17.  $(-6x^3 + 16x^2 - 6x - 4) \div (3x^2 - 5x - 2) =$

(i)  $(2x + 2)$  (ii)  $(-x + 2)$  (iii)  $(-3x + 2)$

(iv)  $(-2x + 2)$  (v)  $(-2x - 2)$

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18.  $(24x^3y^3 + 4x^2y^3) \div 2xy^2 =$

(i)  $(12x^2y + 2xy^2z)$  (ii)  $(12x^2y + 2y^2)$  (iii)  $(12x^2y + 2xy)$

(iv)  $(12x^3y^3 + 2xy)$  (v)  $(12x^3y^2 + 2xy)$

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19.  $(16x^4y^2z^4 + 80x^3y^3z^3 + 320x^3y^2z^3) \div 4x^2yz^2 =$

(i)  $(4x^2yz^2 + 20xy^3z^2 + 80xyz)$  (ii)  $(4x^3y^3z^2 + 20xy^2z + 80xyz)$

(iii)  $(4x^2yz^2 + 80xyz + 20y^3z)$  (iv)  $(4x^2yz^2 + 20xy^2z + 80xyz)$

(v)  $(4x^3y^2z^2 + 20xy^2z + 80xyz)$

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20.  $(6x^4 + 4x^3) \div 2x^2$

(i)  $(-3x^2 + 2x)$  (ii)  $(3x^2 - 2x)$  (iii)  $(3x^2 + 3x)$

(iv)  $(2x^2 + 2x)$  (v)  $(3x^2 + 2x)$

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21.  $(6x^4 + 19x^3 + 15x^2) \div (3x^2 + 5x)$

(i)  $(2x^2 + 3x)$  (ii)  $(2x^2 + 4x)$  (iii)  $(x^2 + 3x)$

(iv)  $(-2x^2 + 3x)$  (v)  $(2x^2 - 3x)$

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22.  $(5x^4 + 21x^3 - 56x^2 - 12x) \div (x^2 + 4x - 12)$

(i)  $(5x^2 - x)$  (ii)  $5x^2$  (iii)  $(5x^2 + 2x)$

(iv)  $(-5x^2 + x)$  (v)  $(5x^2 + x)$

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23. Find the remainder when  $(9x^2 + 36x + 35)$  is divided by  $(2x + 8)$

(i) 35 (ii) 37 (iii) 34 (iv) 36 (v) 33

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## Assignment Key

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- 1) (iii)
- 2) (i)
- 3) (iv)
- 4) (iii)
- 5) (ii)
- 6) (iv)
- 7) (ii)
- 8) (iii)
- 9) (i)
- 10) (iv)
- 11) (iv)
- 12) (i)
- 13) (ii)
- 14) (iv)
- 15) (v)
- 16) (v)
- 17) (iv)
- 18) (iii)
- 19) (iv)
- 20) (v)
- 21) (i)
- 22) (v)
- 23) (i)