

EduSahara™ Learning Center Assignment**Grade : Class VIII, ICSE****Chapter : Simplification of Algebraic Fractions****Name : H.C.F and L.C.M of Polynomials****Licensed To : Teachers and Students for non-commercial use**

1. Find the H.C.F. of $66x^3$ and $102x^3$

(i) $6x^6$ (ii) $6x^3$ (iii) $6x^5$ (iv) $6x^4$ (v) $1122x^3$

2. Find the H.C.F. of $190x^2y^2$ and $70x^2y^3$

(i) $10x^3y^2$ (ii) $10x^5y^2$ (iii) $10x^2y^4$ (iv) $1330x^2y^3$ (v) $10x^2y^2$

3. Find the H.C.F. of $44x^3yz^2$ and $8x^2y^3z^3$

(i) $4x^2yz^4$ (ii) $4x^2y^3z^2$ (iii) $4x^3yz^2$ (iv) $4x^2yz^2$ (v) $88x^3y^3z^3$

4. Find the L.C.M. of $4x$ and $12x^2$

(i) $12x^3$ (ii) $48x^3$ (iii) $12x^2$ (iv) $4x$ (v) $12x^4$

5. Find the L.C.M. of $12x^2y^2$ and $48x^2y$

(i) $48x^2y^2$ (ii) $576x^4y^3$ (iii) $48x^3y^2$ (iv) $48x^2y^4$ (v) $12x^2y$

6. Find the L.C.M. of $2xy^2z^3$ and $10x^2y^3z^3$

(i) $10x^3y^3z^3$ (ii) $10x^2y^3z^3$ (iii) $20x^3y^5z^6$

(iv) $2xy^2z^3$ (v) $10x^2y^5z^3$

7. Find the H.C.F. of $(x^2 + x - 20)$ and $(x^2 - 2x - 35)$

- (i) $(2x - 4)$ (ii) $(x - 7)$ (iii) $(2x + 5)$ (iv) $(x - 4)$ (v) $(x + 5)$
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Find the L.C.M. of $(x^2 - 12x + 32)$, $(x^2 - 6x - 16)$

8.

and $(x^2 - 2x - 8)$

- (i) $(x - 4)(x - 8)(x - 1)$

- (ii) $(x - 4)(x - 8)(x - 3)$

- (iii) $(x - 8)(x + 2)(x - 1)$

- (iv) $(x - 4)(x + 2)(x - 1)$

- (v) $(x - 4)(x - 8)(x + 2)$
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9. Find the L.C.M. of $(64x^2 + 112xy + 45y^2)$ and $(72x^2 + 153xy + 81y^2)$

- (i) $(8x + 5y)(8x + 9y)(x + 2y)$

- (ii) $(8x + 9y)(9x + 9y)(5x + 5y)$

- (iii) $(8x + 5y)(8x + 9y)(5x + 5y)$

- (iv) $(8x + 5y)(8x + 9y)(9x + 9y)$

- (v) $(9x + 9y)(8x + 5y)(5x + 5y)$
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10. Which of the following gives the L.C.M. of two or more polynomials?

- (i) (L.C.M. of numerical coefficients) $\times$ (Each common factor raised to the highest power)
(ii) (Product of numerical coefficients) $\times$ (Each common factor raised to the highest power)
(iii) (Product of numerical coefficients) $\times$ (Each common factor raised to the lowest power)
(iv) (L.C.M. of numerical coefficients) $\times$ (Each common factor raised to the lowest power)
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11. Which of the following gives the H.C.F of two or more polynomials?

- (i) (Product of numerical coefficients) $\times$ (Each common factor raised to the lowest power)
 - (ii) (H.C.F. of numerical coefficients) $\times$ (Each common factor raised to the highest power)
 - (iii) (Product of numerical coefficients) $\times$ (Each common factor raised to the highest power)
 - (iv) (H.C.F. of numerical coefficients) $\times$ (Each common factor raised to the lowest power)
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Assignment Key

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