EduSahara™ Learning Center Assignment

Grade : Class VII, ICSE
Chapter : Factorisation
Name : H.C.F of Polynomials
Licensed To : Teachers and Students for non−commercial use

---

1. Find the H.C.F. of $104\,x^2$ and $16\,x^3$

   (i) $208\,x^3$ (ii) $8\,x^5$ (iii) $8\,x^2$ (iv) $8\,x^4$ (v) $8\,x^3$

---

2. Find the H.C.F. of $70\,x^2\,y^2$ and $20\,x\,y^2$

   (i) $10\,x\,y^4$ (ii) $10\,x\,y^2$ (iii) $10\,x^4\,y^2$ (iv) $140\,x^2\,y^2$ (v) $10\,x^2\,y^2$

---

3. Find the H.C.F. of $132\,x\,y^3\,z^2$ and $204\,x^3\,y^2\,z^2$

   (i) $12\,x^2\,y^2\,z^2$ (ii) $12\,x\,y^4\,z^2$ (iii) $2244\,x^3\,y^3\,z^2$ (iv) $12\,x\,y^2\,z^4$ (v) $12\,x\,y^2\,z^2$

---

4. Find the H.C.F. of $(x^2 + 15x + 56)$ and $(x^2 + 11x + 28)$

   (i) $(2x + 8)$ (ii) $(x + 7)$ (iii) $(x + 4)$ (iv) $(x + 8)$ (v) $(2x + 7)$

---

5. Which of the following gives the H.C.F of two or more polynomials?
   (i) (H.C.F. of numerical coefficients) × (Each common factor raised to the lowest power)
   (ii) (H.C.F. of numerical coefficients) × (Each common factor raised to the highest power)
   (iii) (Product of numerical coefficients) × (Each common factor raised to the lowest power)
   (iv) (Product of numerical coefficients) × (Each common factor raised to the highest power)

---

6. Which of the following is a factor of $20\,x^3\,y^5\,z^2$?

   (i) $x\,y^6$ (ii) $x\,y^5\,z^3$ (iii) $x^3\,y^5\,z^3$ (iv) $x^4\,y^5$ (v) $x\,y^5$

---

7. Which of the following is not a factor of $14\,x^3\,y^3\,z^2$?

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

---

8. Which of the following is a factor of $(5x^3 + y^2 z^2)$?

(i) $y^2 z^2$ (ii) y (iii) $5x^3$ (iv) xz (v) no factors

---

9. Which of the following is an irreducible factor of $24 x^3 y^3 z^5$?

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

---

10. Which of the following is not an irreducible factor of $(x^2 y + x y^2 + x y)$?

(i) $(x + y + 1)$ (ii) $x y$ (iii) x (iv) y

---

11. Find the H.C.F. of $114 x^3$ and $12 x^3$

(i) $6 x^6$ (ii) $228 x^3$ (iii) $6 x^4$ (iv) $6 x^3$ (v) $6 x^5$

---

12. Find the H.C.F. of $56 x^3 y^2$ and $40 x^3 y^2$

(i) $8 x^6 y^2$ (ii) $280 x^3 y^2$ (iii) $8 x^3 y^2$ (iv) $8 x^4 y^2$ (v) $8 x^3 y^4$

---

13. Find the H.C.F. of $190 x y^3 z^3$ and $50 x^3 y^3 z$

(i) $10 x y^3 z$ (ii) $10 x y^5 z$ (iii) $950 x^3 y^3 z^3$ (iv) $10 x^2 y^3 z$ (v) $10 x y^3 z^3$

---

14. Find the H.C.F. of $(x^2 + 17 x + 72)$ and $(x^2 + 3 x - 54)$

(i) $(2x + 8)$ (ii) $(2x + 9)$ (iii) $(x - 6)$ (iv) $(x + 8)$ (v) $(x + 9)$

---

15. Which of the following is a factor of $6 x^3 y^4 z$?

(i) $2x^3y^5$ (ii) $2x^3y^3$ (iii) $2x^3y^3z^2$ (iv) x^4y^3

---

16. Which of the following is not a factor of $50x^5y^5z^2$?

(i) $25x^5y^5z$ (ii) $25x^5y^6z^2$ (iii) $25x^5y^4z^2$ (iv) $25x^4y^5z^2$ (v) $25xy^3$

---

17. Which of the following is a factor of $(9x + y^3z^3)$?

(i) y^3z^3 (ii) $9y^2$ (iii) no factors (iv) $9x$ (v) $9xz^3$

---

18. Which of the following is an irreducible factor of $43xy^2z^4$?

(i) z (ii) xz^2 (iii) xy (iv) xy^2z^2 (v) y^2z

---

19. Which of the following is not an irreducible factor of $(x^2y + xy^2 + xy)$?

(i) xy (ii) $(x + y + 1)$ (iii) x (iv) y

Assignment Key

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