EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Operations on Algebraic Expressions

Grade : ICSE Grade VI

1. Which of the following is a like term of $(-5fg)$?

   (i) $5gh$ (ii) $3fg$ (iii) $(-7g)$ (iv) $8f$ (v) $(-fgh)$

2. Which of the following terms can be added to $(-9no)$?

   (i) $(-7op)$ (ii) $(-9np)$ (iii) $(-2nop)$ (iv) $(-6no)$ (v) $(-3o)$

3. The value of $\frac{1}{2}rs\left(\frac{1}{2}qrs^2+\frac{1}{2}s^2\right)$ is

   (i) $\left(\frac{1}{4}qr^2s^3-\frac{1}{4}rs^3\right)$ (ii) $\left(\frac{1}{6}qr^2s^3+\frac{1}{4}rs^3\right)$ (iii) $\left(\frac{1}{4}qr^2s^3+\frac{3}{4}rs^3\right)$ (iv) $\left(\frac{1}{4}qr^2s^3+\frac{1}{4}rs^3\right)$ (v) $\left(\frac{1}{2}qr^2s^3+\frac{1}{4}rs^3\right)$

4. The value of $\frac{1}{2}\times\frac{1}{2}\times\frac{1}{3}$ is

   (i) $\frac{1}{12}$ (ii) $\frac{1}{4}$ (iii) $\frac{1}{10}$ (iv) $\left(-\frac{1}{12}\right)$ (v) $\frac{1}{14}$

5. The value of $(6w^2-2w-18x^2+8x)+(3w^2x^2-w^2x+9w+2x^2)$ is

   (i) $(3w^2x^2+2w^2x+6w^2+7w-16x^2+8x)$ (ii) $(2w^2x^2-w^2x+6w^2+7w-16x^2+8x)$

   (iii) $(3w^2x^2-3w^2x+6w^2+7w-16x^2+8x)$ (iv) $(3w^2x^2-w^2x+6w^2+7w-16x^2+8x)$

   (v) $(4w^2x^2-w^2x+6w^2+7w-16x^2+8x)$

6. The value of $(6d^5+8d^4-2d^2)+(5d^5-8d^2+7d)+(5d^5+9d^2+9)+(d^5+2d-1)$ is

   (i) $(14d^5+8d^4-d^2+9d+8)$ (ii) $(17d^5+8d^4-d^2+9d+8)$ (iii) $(16d^5+8d^4-d^2+9d+8)$

   (iv) $(18d^5+8d^4-d^2+9d+8)$ (v) $(19d^5+8d^4-d^2+9d+8)$

7. The value of $(-8xy+5y-7)-(6xy+9y+5)$ is

   (i) $(-14xy-y-12)$ (ii) $(-14xy-7y-12)$ (iii) $(-15xy-4y-12)$ (iv) $(-13xy-4y-12)$

   (v) $(-14xy-4y-12)$

8. The value of $(8g^2-6g+2)+(3g^2-3g-6)$ is

   (i) $(10g^2-9g-4)$ (ii) $(12g^2-9g-4)$ (iii) $(13g^2-9g-4)$ (iv) $(9g^2-9g-4)$ (v) $(11g^2-9g-4)$

9. The value of $2w^2x^2y^2-(-3w^2x^2y^2)-9w^2x^2y^2-(-w^2x^2y^2)$ is

   (i) 0 (ii) $(-4w^2x^2y^2)$ (iii) $(-3w^2x^2y^2)$ (iv) $(-2w^2x^2y^2)$ (v) $(-6w^2x^2y^2)$

10. The sum of the terms $8, (-8j), 5, (-7ik), (-6jk)$ is

(i) $(-7ik-6jk-8j+13)$ (ii) $(-8ik-6jk-8j+13)$ (iii) $(-7ik-3jk-8j+13)$ (iv) $(-6ik-6jk-8j+13)$

(v) $(-7ik-8jk-8j+13)$

11. The value of $(-6xyz-3xz-2yz)+(7xy-9y-9z)$ is

(i) $(-6xyz+7xy-3xz-2yz-9y-9z)$ (ii) $(-6xyz+4xy-3xz-2yz-9y-9z)$

(iii) $(-7xyz+7xy-3xz-2yz-9y-9z)$ (iv) $(-5xyz+7xy-3xz-2yz-9y-9z)$

(v) $(-6xyz+10xy-3xz-2yz-9y-9z)$

12. The value of $\frac{4}{5}op-\frac{1}{4}op-\frac{1}{4}op-\frac{2}{3}op$ is

(i) $(-\frac{3}{10}op)$ (ii) $(-\frac{13}{30}op)$ (iii) $(-\frac{11}{32}op)$ (iv) $(-\frac{11}{30}op)$ (v) $(-\frac{11}{28}op)$

13. The sum of the expressions $(12r-8), (-11q-2), (-r+8), (6r+10), (5qr-4r)$ is

(i) $(5qr-13q+13r+8)$ (ii) $(5qr-8q+13r+8)$ (iii) $(4qr-11q+13r+8)$ (iv) $(5qr-11q+13r+8)$

(v) $(6qr-11q+13r+8)$

14. The value of $\frac{1}{2}u^2-\frac{3}{4}u^2-\frac{1}{2}u^2$ is

(i) $(-\frac{5}{4}u^2)$ (ii) $(-\frac{3}{4}u^2)$ (iii) $(-\frac{1}{2}u^2)$ (iv) $(-\frac{1}{4}u^2)$ (v) $(-\frac{3}{2}u^2)$

15. The value of $\frac{1}{3}j^4+\frac{1}{2}j^4+\frac{1}{4}j^4+\frac{1}{2}j^4$ is

(i) $\frac{7}{4}j^4$ (ii) $\frac{19}{12}j^4$ (iii) $\frac{17}{10}j^4$ (iv) $\frac{3}{2}j^4$ (v) $\frac{17}{12}j^4$

16. The value of $(-9h^2)+(-8h^2)+8h^2$ is

(i) $(-6h^2)$ (ii) $(-10h^2)$ (iii) $(-8h^2)$ (iv) $(-9h^2)$ (v) $(-11h^2)$

17. The value of $(-8xz)\times(-5yz)\times(-7y)\times(-5xyz)$ is

(i) $1401x^2y^3z^3$ (ii) $1397x^2y^3z^3$ (iii) $1402x^2y^3z^3$ (iv) $1399x^2y^3z^3$ (v) $1400x^2y^3z^3$

18. The value of $\frac{2}{3}x^3y^3z^3+\frac{1}{2}x^3y^3z^3+\frac{2}{3}x^3y^3z^3+\frac{1}{4}x^3y^3z^3$ is

(i) $\frac{23}{12}x^3y^3z^3$ (ii) $\frac{29}{14}x^3y^3z^3$ (iii) $\frac{25}{12}x^3y^3z^3$ (iv) $\frac{21}{10}x^3y^3z^3$ (v) $\frac{9}{4}x^3y^3z^3$

19. The expanded form of $(x-9)(x+7)(x+8)(x+6)$ is

(i) $(-2x^4+12x^3-43x^2-978x-3024)$ (ii) $(4x^4+12x^3-43x^2-978x-3024)$

(iii) $(12x^3-43x^2-978x-3024)$ (iv) $(x^4+12x^3-43x^2-978x-3024)$

(v) $(2x^4+12x^3-43x^2-978x-3024)$

20. The value of $(-3x)-(-9x)$ is

(i) $6x$ (ii) $4x$ (iii) $9x$ (iv) $7x$ (v) $5x$

21. The value of $(-n^2)-(-9n^2)-(-4n^2)$ is

(i) $12n^2$ (ii) $9n^2$ (iii) $13n^2$ (iv) $11n^2$ (v) $14n^2$

22. Which of the following terms is a like term of $8w^4$?

(i) w^3 (ii) $9w^2$ (iii) 9 (iv) $(-5w^4)$ (v) w

23. The value of $\frac{1}{2}\times\frac{1}{4}uvw\times\frac{1}{2}w\times\frac{1}{4}uv$ is

(i) $\frac{1}{66}u^2v^2w^2$ (ii) $\frac{3}{64}u^2v^2w^2$ (iii) $\frac{1}{62}u^2v^2w^2$ (iv) $(-\frac{1}{64}u^2v^2w^2)$ (v) $\frac{1}{64}u^2v^2w^2$

24. The value of $5xyz(x-5yz+5)$ is

(i) $(5x^2yz-28xy^2z^2+25xyz)$ (ii) $(5x^2yz-25xy^2z^2+25xyz)$ (iii) $(4x^2yz-25xy^2z^2+25xyz)$

(iv) $(5x^2yz-23xy^2z^2+25xyz)$ (v) $(6x^2yz-25xy^2z^2+25xyz)$

25. The sum of the terms $7, 5g, fg, 8fg, (-4f)$ is

(i) $(9fg-4f+5g+7)$ (ii) $(8fg-4f+5g+7)$ (iii) $(9fg-7f+5g+7)$ (iv) $(9fg-2f+5g+7)$

(v) $(10fg-4f+5g+7)$

Assignment Key

1) (ii)	2) (iv)	3) (iv)	4) (i)	5) (iv)	6) (ii)
7) (v)	8) (v)	9) (iii)	10) (i)	11) (i)	12) (iv)
13) (iv)	14) (ii)	15) (ii)	16) (iv)	17) (v)	18) (iii)
19) (iv)	20) (i)	21) (i)	22) (iv)	23) (v)	24) (ii)
25) (i)					