Worksheet 1

Fill in the blanks :

1. When two negative integers are added, we get a _____ integer.

2. For subtraction, we add the _____ of the integer that is being subtracted to the other integer.

3. **Find :**

   (i) $-15 + 42$ = _____

   (ii) $26 + (-40)$ = _____

   (iii) $105 + (-62)$ = _____

   (iv) $-45 + (-17)$ = _____

   (v) $51 + (-26)$ = _____

   (vi) $-74 + 47$ = _____

   (vii) $-35 + (-19) + 8$ = _____

   (viii) $-5 + 10 + (-15) + 20$ = _____

   (ix) $81 - 18$ = _____

   (x) $-55 - 14$ = _____

   (xi) $-36 - (-7)$ = _____

   (xii) $26 - (-48)$ = _____

   (xiii) $7 - 43$ = _____

   (xiv) $-81 - 29$ = _____

   (xv) $-107 - (-48)$ = _____

   (xvi) $0 - (-46)$ = _____

4. **Insert >, = or < in the box to make the statement true :**

   (i) $-18 + (-27)$ ☐ $27 - (-18)$

   (ii) $-10 - 15 + (-20)$ ☐ $30 - (-20) + (-15)$

   (iii) $105 - (-7) + (-4)$ ☐ $-95 + 100 - 6$

   (iv) $50 + (-35) - 30$ ☐ $40 - 70 + (-5)$

   (v) $100 - 60 - (-10)$ ☐ $-70 + (-50) + 120$

Worksheet 2

1. Are integers closed under addition? _____

2. Are integers closed under subtraction? _____

3. Is addition commutative for integers? _____

4. Is subtraction commutative for integers? _____

5. Is addition associative for integers? _____

6. Is subtraction associative for integers? _____

7. Write the additive identity for integers. _____

8. **Fill in the blanks :**

   (i) $-15 + 18$ = _____ + (-15)

   (ii) $26 +$ _____ = $-21 + 26$

   (iii) $0 +$ _____ = -7

   (iv) $\{15 + (-8)\} + 24 =$ _____ + $(-8 + 24)$

   (v) $-40 + \{19 + (-36)\} = (-40 +$ _____ $) + (-36)$

   (vi) $0 - 27 =$ _____

   (vii) _____ $+ 36 = 0$

   (viii) $0 -$ _____ $= 93$

   (ix) Subtraction of two integers gives an _____ .

   (x) _____ is equal to its additive inverse.

9. **Name the property used :**

   (i) $\{-15 + 7\} + (-18) = -15 + \{7 + (-18)\}$ _____

   (ii) $40 + (-37) = -37 + 40$ _____

   (iii) $15 - 103$ is an integer. _____

   (iv) $-21 + 70$ is an integer. _____

   (v) $4 + \{(-8) + 25\} = \{4 + (-8)\} + 25$ _____

Worksheet 3

1. Write a pair of integers whose sum gives :

   (i) a positive integer _____

   (ii) a negative integer _____

  (iii) zero _____

  (iv) an integer greater than both the integers _____

   (v) an integer smaller than both the integers _____

  (vi) an integer smaller than only one of the integers _____

 (vii) an integer greater than only one of the integers _____

2. Write a pair of integers whose difference gives :

   (i) a positive integer _____

  (ii) a negative integer _____

  (iii) zero _____

  (iv) an integer greater than both the integers _____

   (v) an integer smaller than both the integers _____

  (vi) an integer greater than only one of the integers _____

3. Write a positive integer and a positive integer whose difference is -10._____

4. Write a pair of negative integers whose difference gives 8. _____

Worksheet 4

Find the product :

1. $12 \times 10 =$

2. $12 \times (-10) =$

3. $(-12) \times (-10) =$

4. $(-20) \times 5 =$

5. $(-5) \times (-3) \times 0 =$

6. $51 \times (-1) =$

7. $(-30) \times 1 =$

8. $-20 \times 0 =$

9. $(-1) \times (-10) =$

10. $(-1) \times 0 =$

11. $2 \times (-5) \times 4 =$

12. $3 \times (-2) \times (-3) \times 2 =$

13. $(-2) \times (-3) \times 2 =$

14. $(-2) \times (-3) \times (-1) =$

15. $(-1) \times (-2) \times (-1) \times (-3) \times (-1) =$

16. $(-25) \times 1 \times (-10) =$

17. $(-1) \times (-2) \times 3 \times 2 \times (-1) =$

18. $(-2) \times (-3) \times (-1) \times 4 \times (-1) =$

19. $(-4) \times 24 \times (-25) \times (-1) =$

20. $150 \times (-5) \times (-5) \times 4 =$

Worksheet 5

1. What will be the sign of the product if we multiply :

(i) 5 negative integers and 1 positive integers? _____

(ii) 12 negative integers and 7 positive integers? _____

(iii) 24 positive integers and 95 negative integers? _____

(iv) 36 positive integers and 120 negative integers? _____

(v) −1 eighteen times? _____

(vi) −1 fifty seven times? _____

(vii) −1, $2x$ times, where x is a natural number? _____

2. Fill in the blanks :

(i) $- 5 \times 7$ = _____ $\times (- 5)$

(ii) _____ $\times (-105)$ = $-105 \times (-8)$

(iii) $- 46 \times$ _____ = 0

(iv) $- 8 \times$ _____ = $- 8$

(v) $1 \times$ _____ = $- 51$

(vi) _____ $\times (- 51)$ = 51

(vii) $\{15 \times (-8)\} \times 26$ = $15 \times ($ ____ $\times 26)$

(viii) $-1 \times ($ ____ $\times 41) = (-1 \times 1) \times 41$

(ix) $(40 \times 18) \times$ ____ = $40 \times \{18 \times (-16)\}$

(x) ____ $\times (5 + 46)$ = $-10 \times 5 + (-10) \times 46$

(xi) $-18 \times (4 - $ ____ $) = -18 \times 4 - (-18) \times 25$

(xii) $- 81 \times 0$ = _____

3. Using distributive property, find :

(i) $-18 \times 12 =$ _____

_____

(ii) $105 \times (-32) =$ _____

_____

Worksheet 6

1. Fill in the blanks :

(i) $5 + (10 - 3) =$ _____

(ii) $10 - 9 \times 10 =$ _____

(iii) $(3 - 9) \times 10 =$ _____

(iv) $[(-3) - (7)] \times (-4) =$ _____

(v) $(-3) - 5 \times (-2) =$ _____

(vi) $(-9) \times (-1) + (-3) =$ _____

(vii) $9 \times$ _____ $= -9$

(viii) $(-9) \times$ _____ $= 9$

(ix) $12 \times$ _____ $= -36$

(x) $(-15) \times$ _____ $= 90$

(xi) $(-10) \times$ _____ $= 100$

(xii) $(-5) \times$ _____ $= 0$

(xiii) $18 \times (-4) + 18 \times (-6) = 18$ [_____ + _____] $= 18 \times$ _____ $=$ _____

(xiv) $15 \times 99 - (-15) = 15$ [_____ + _____] $= 15 \times$ _____ $=$ _____

(xv) $21 \times (-2) + (-21) \times 8 = 21$ [_____ + _____] $= 21 \times$ _____ $=$ _____

(xvi) $(-3) \times (10 - 4 - 5 + 9) = (-3) \times$ _____ $=$ _____

(xvii) $10 + (-3) \times (-2) - 6 =$ _____

2. Find the following products by suitable rearrangements :

(i) $-8 \times 36 \times 5 =$ _____

(ii) $25 \times (-56) \times (-8) =$ _____

(iii) $-16 \times 40 \times (-125) \times (-5) =$ _____

3. Name the property used :

(i) $-15 \times (-56)$ is an integer. _____

(ii) $-72 \times 26 = 26 \times (-72)$ _____

(iii) $\{8 \times (-46)\} \times 32 = 8 \times (-46 \times 32)$ _____

(iv) $-15 \times 105 = -15 \times 100 + (-15) \times 5$ _____

(v) $98 \times (-51) = 100 \times (-51) - 2 \times (-51)$ _____

Worksheet 7

Fill in the blanks :

1. $10 \div (-2) =$ _____

2. $(-18) \div 2 =$ _____

3. $(-16) \div (-4) =$ _____

4. $100 \div (-20) =$ _____

5. $(-26) \div 13 =$ _____

6. $(-10) \div (-20) =$ _____

7. $0 \div (-5) =$ _____

8. $(-5) \div 1 =$ _____

9. $(-5) \div (-1) =$ _____

10. $15 \div (-1) =$ _____

11. $300 \div (-50) =$ _____

12. $(-300) \div (-30) =$ _____

13. $450 \div (-15) =$ _____

14. $(-625) \div 25 =$ _____

15. $25 \div$ _____ $= (-25)$

16. $(-25) \div$ _____ $= 25$

17. $(-26) \div$ _____ $= 1$

18. $28 \div$ _____ $= (-1)$

19. $(-36) \div$ _____ $= (-1)$

20. _____ $\div (-11) = 0$

21. $100 \div$ _____ $= (-2)$

22. $(-56) \div$ _____ $= -8$

23. $45 \div$ _____ $= -9$

24. $-36 \div$ _____ $= 6$

25. $65 \div$ _____ $= 5$

26. _____ $\div 3 = -21$

27. _____ $\div (-8) = 3$

28. $90 \div$ _____ $= -6$