

MATHS
WORKSHEET - I

CLASS VIII [Chapter -7, 9 and 15]

Q1 Which of the following numbers are perfect cubes.

- (a) 8000 (b) 9261 (c) 3375

Q2 Find the smallest number by which following numbers must be multiplied so that the product is a perfect cube -

- (a) 1323 (b) 2560

Q3 Find the smallest number by which following numbers must be divided so that the quotient is a perfect cube -

- (a) 1600 (b) 8788

Q4 Evaluate $\rightarrow$

(a) $\sqrt[3]{1728}$ (b) $\sqrt[3]{2744}$ (c) $\sqrt[3]{4096}$

(d) $\sqrt[3]{729}$

Q5 Find the following products $\rightarrow$

(a) $(4x+9)(x-6)$ (b) $(x^4 + \frac{1}{x^4})(x + \frac{1}{x})$ (c) $(3x+2y-4)(x-y+2)$
(d) $(3x^2+5x-9)(3x-5)$ (e) $(\frac{1}{3}x^2y)(\frac{1}{8}xy)$ (f) $(a^2b)(5ab^2)(-3)$

Q6 Find using identities -

(a) $(4x-7y)(4x-7y)$ (b) $(x^2+7)(x^2+7)$ (c) $(\frac{1}{3}x^2-9)(\frac{1}{3}x^2-9)$
(d) $(\frac{1}{x} + \frac{1}{y})(\frac{1}{x} - \frac{1}{y})$ (e) $(7x+11y)(7x-11y)$
(f) $(x-3)(x-3)$ (g) $(p+3)(p-6)$

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Q7 Expand $\rightarrow$

(a) $(8a+3b)^2$ (b) $(9x-10)^2$ (c) $\left(\frac{7}{y} - \frac{y}{2}\right)^2$

Q8 Evaluate using suitable identities $\rightarrow$

(a) $(54)^2$ (b) $(69)^2$ (c) 14.7×15.3

(d) $(82)^2 - (18)^2$

Q9 Add $\rightarrow$

(a) $3a-4b+4c$, $2a+3b-8c$, $a-6b+c$

(b) $4x^2-7xy+4y^2-3$; $5+6y^2-8xy+x^2$ and $6-2xy+2x^2-5y^2$

Q10 Subtract $\rightarrow$

(a) $2a-5b+2c-9$ from $3a-4b-c+6$

(b) $4p^2+5q^2-6r^2+7$ from $3p^2-4q^2-5r^2-6$

Q11 Simplify and then find the value of following $\rightarrow$

(a) $3(m-6) + 2(4+5m)$, $m=0$, $m=1$

(b) $-(2x-5y) - 4(2y-4x)$, $x=1$, $y=-1$

(c) $(p+q)(p^2+3)$, $p=-1$, $q=-2$

Q12 Write down x and y-co-ordinate of following points $\rightarrow$

(a) A(0,7) (b) B(-6,3) (c) D(-5,-9)

Q13 Plot the following points in a rectangular co-ordinate plane $\rightarrow$

(a) $(-2, -6)$, $(0,0)$, $(2,6)$, $(-1,-3)$, $(3,9)$

(b) $(1,1)$, $(2,2)$, $(4,4)$, $(5,5)$, $(9,9)$

Do all the points lie on a straight line.

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- Q14 (a) Plot the points $A(-4,4)$, $B(6,7)$, $C(0,5)$ and $D(-5,0)$ in a rectangular co-ordinate plane
- (b) Join A and B & Join C and D
- (c) Write down the co-ordinates of the points of intersection of AB and CD.

Q15 Draw a graph for the following table -

side of square (in cm)	3	5	5.5	6
perimeter (in cm)	12	20	22	24