



## இயல் 7.3 இயற்கணிதம்

பயிற்சி எண் :: 7.3.4.1.D

இயற்கணிதம் (Algebra) - மதிப்புகளைக் கண்டுபிடித்தல் - தநாஅபு - பயிற்சி 3.1.8-9

### இயற்கணிதம் (Algebra) - மதிப்புகளைக் கண்டுபிடித்தல் - தநாஅபு - பயிற்சி 3.1.8-9

8. பின்வருவனவற்றின் மதிப்பைக் காண்க.

i)  $(-4)^2$

$$(-4)^2 = (-4) \times (-4)$$

$$= 16$$

$$\therefore (-4)^2 = \boxed{16}$$

ii)  $(-3) \times (-2)^3$

$$(-3) \times (-2)^3 = \underbrace{(-3) \times (-2)} \times \underbrace{(-2) \times (-2)}$$

$$= 6 \times 4 = 24$$

$$\therefore (-3) \times (-2)^3 = \boxed{24}$$

iii)  $(-2)^3 \times (-10)^3$

$$(-2)^3 \times (-10)^3 = \underbrace{(-2) \times (-2) \times (-2)} \times \underbrace{(-10) \times (-10) \times (-10)}$$

$$= (-8) \times (-1,000) = 8,000$$

$$\therefore (-2)^3 \times (-10)^3 = \boxed{8,000}$$

9. அடுக்கு விதிகளைப் பயன்படுத்தி, எளிய அடுக்கு வடிவில் சுருக்கி எழுதுக.

i)  $3^5 \times 3^8$

$$a^m \times a^n = a^{m+n}$$

$$3^5 \times 3^8 = 3^{5+8} = 3^{13}$$

$$\therefore 3^5 \times 3^8 = \boxed{3^{13}}$$

ii)  $a^4 \times a^{10}$

$$a^m \times a^n = a^{m+n}$$

$$a^4 \times a^{10} = a^{4+10} = a^{14}$$

$$\therefore a^4 \times a^{10} = \boxed{a^{14}}$$

iii)  $7^x \times 7^2$

$$a^m \times a^n = a^{m+n}$$

$$7^x \times 7^2 = 7^{x+2}$$

$$\therefore 7^x \times 7^2 = \boxed{7^{x+2}}$$

iv)  $2^5 \div 2^3$

$$a^m \div a^n = a^{m-n}$$

$$2^5 \div 2^3 = 2^{5-3} = 2^2$$

$$\therefore 2^5 \div 2^3 = \boxed{2^2}$$

v)  $18^8 \div 18^4$

$$a^m \div a^n = a^{m-n}$$

$$18^8 \div 18^4 = 18^{8-4} = 18^4$$

$$\therefore 18^8 \div 18^4 = \boxed{18^4}$$

vi)  $(6^4)^3$

$$(a^m)^n = a^{m \times n}$$

$$(6^4)^3 = 6^{4 \times 3} = 6^{12}$$

$$\therefore (6^4)^3 = \boxed{6^{12}}$$

vii)  $(x^m)^0$

$$(a^m)^n = a^{m \times n}$$

$$(x^m)^0 = x^{m \times 0} = x^0 = 1$$

$$\therefore (x^m)^0 = \boxed{1}$$

viii)  $9^5 \times 3^5$

$$a^m \times b^m = (a \times b)^m$$

$$9^5 \times 3^5 = (9 \times 3)^5 = (27)^5$$

$$\therefore 9^5 \times 3^5 = \boxed{(27)^5}$$

ix)  $3^y \times 12^y$

$$a^m \times b^m = (a \times b)^m$$

$$3^y \times 12^y = (3 \times 12)^y = (36)^y$$

$$\therefore 3^y \times 12^y = \boxed{(36)^y}$$

x)  $25^6 \times 5^6$

$$a^m \times b^m = (a \times b)^m$$

$$25^6 \times 5^6 = (25 \times 5)^6 = (125)^6$$

$$\therefore 25^6 \times 5^6 = \boxed{(125)^6}$$

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