$a = b \times q + r$

Theo đề bài: $a + 38 = (b + 3) \times q + r$

$a + 38 = b \times q + 3 \times q + r - 4$

$a + 38 = b \times q + r + 3 \times q - 4$

$38 = 3 \times q - 4$ (do $a = b \times q + r$)

$3 \times c = 42$

$c = 42 : 3$

$c = 14$

Vậy thương là 14.

SỐ MŨ

10/08/21

Bài 1

a) $7.7.7.7.7 = 7^5$

b) $4.8.8.2 = (4.2).8.8 = 8.8.8 = 8^3$

c) $3.3.3.9 = 3.3.3.3.3 = 3^5$

d) $10.2.2.5.5 = 10.(2.5).(2.5) = 10.10.10 = 10^3$

Bài 2

a) $2^5 = 2.2.2.2.2$

b) $3^4 = 3.3.3.3$

c) $5^3 = 5.5.5$

d) $10^6 = 10.10.10.10.10.10$

Bài 3

a) $5.5^2.5^3 = 5^{2+3+1} = 5^6$

b)

Thứ ngày . .

b) $3^3 \times 9^2 = 3^3 \times (3^2)^2 = 3^3 \times 3^4 = 3^{3+4} = 3^7$

c) $48 \times 8^4 = (2^4)^8 \times (2^3)^4 = 2^{16} \times 2^{12} = 2^{16+12} = 2^{28}$

d) $7^4 \times 343 \times 49^2 = 7^4 \times 7^3 \times (7^2)^2 = 7^4 \times 7^3 \times 7^4$
$= 7^{4+3+4} = 7^{11}$

e) $7^5 : 7^2 = 7^{5-2} = 7^3$

g) $729 : 3^3 : 9 = 3^6 : 3^3 : 3^3 = 3^{6-3-2} = 3$

h) $125^{10} : 25^6 = (5^3)^{10} : (5^2)^6 = 5^{30} : 5^{12} =$
$5^{30-12} = 5^{18}$

i) $16^3 : 8^4 = (2^4)^3 : (2^3)^4 = 2^{12} : 2^{12} = 2^{12-12}$
$= 2^0$

Bài 4

a) $A = 2^2 \times 5^2 - 3^2 - 10$
$= 4 \times 25 - 9 - 10$
$= 100 - (9 + 10)$
$= 100 - 19$
$= 81 = 9^2$

b) $B = 3^2 \times 4^3 - 3^2 + 333$
$= 9 \times 64 - 9 + 333 = 586 - 9 + 333$
$= 577 + 333 = 910$

c) $C = 2^{10} \times 15 + 2^{10} \times 17$
$= 2^{10} \times (15 + 17)$
$= 2^{10} \times 32$
$= 64^{10}$

d) $D = 5^{12} \times 7 - 5^{11} \times 10$
$= 5^{11} \times 5 \times 7 - 5^{11} \times 10$
$= 5^{11} \times 35 - 5^{11} \times 10$
$= 5^{11} \times (35 - 10)$
$= 5^{11} \times 25$

Thứ ngày

$= 5^{11} \times 5^2$

$= 5^{11+2}$

$= 5^{13}$

Bài 5

a) $2^n \times 24 \; 2^n = 16$

$= 2^n = 28$

$\Rightarrow n = 8$

b) $5^{2n-1} = 5$

$5^{2n-1} = 5^1 \times 5^1 = 5^2 \times 5^1$

$5^{2n-1+1} = 5^2$

$5^{2n} = 5^2$

$2n = 2$

$n = 2 : 2$

$n = 1$

c) $2^n \times 2^4 = 128$

$2^n \times 2^4 = 2^7$

$2^n = 2^7 : 2^4$

$2^n = 2^3$

$n = 3$

d) $5^6 : 5^n = 625$

$5^6 : 5^n = 5^4$

$5^n = 5^4 : 5^6 \quad 5^6 : 5^4$

$5^n = 5^2$

$n = 2$

Thứ ngày . .

e*) $4^n \times 2^n = 512$

$(2^2)^n \times 2^n = 2^9$

$2^{2n} \times 2^n = 2^9$

$2^{3n} = 2^9$

$3n = 9$

$n = 9 : 3$

$n = 3$

g) $3^n + 3^{n+3} = 252$

$3^n + 3^n \times 3^3 = 252$

$3^n (1 + 27) = 252$

$3^n \cdot 28 = 252$

$3^n = 252 : 28$

$3^n = 9$

$3^n = 3^2$

$n = 2$

Bài 6

a) $x^3 = 27$

$x^3 = 27 : 3^3$

$x = 3^3 : 3^3$

b) $2x^3 - 4 = 12$

$2x^3 = 12 + 4$

$2x^3 = 16$

$x^3 = 16 : 2$

$x^3 = 8$

$x^3 = 2^3$

$x = 2$

c) $(x+1)^2 = 16$

$x + 1 = 16 : 2$

$x + 1 = 8$

$x = 8 - 1$

$x = 7$

d) $(2x-1)^3 = 125$

$2x - 1 = 125 : 3$

$2x - 1 = 4$

e) $(x+2)^3 = (2x)^3$

$\Leftrightarrow 2x + 2 = 2x$

$(x+2)^3 = (x+2)^3$

g) $x^5 = x^9$

$\Leftrightarrow x^9 - x^5 = 0$

$\Leftrightarrow x^5(x^4 - 1) = 0$

$x^4 - 1 =$

c) $(x+1)^2 = 16$

$(x+1)^2 = 4^2$

Bài 7. $(x+1)^2 = 4$

$x = 4 - 1$

$x = 3$

d) $(2x-1)^3 = 125$

$(2x-1)^3 = 5^3$

$2x - 1 = 5$

$2x = 5 + 1$

$2x = 6$

$x = 6 : 2$

$x = 3$

e) $(x+2)^3 = (2x^3)^3$

$\Leftrightarrow x + 2 = 2x$

$\Leftrightarrow 2 = 2x - x$

$\Leftrightarrow 2 = x$

$\Leftrightarrow x = 2$

g) $(2x-1)^3 = 125$

$x^5 = x^9$

$\Leftrightarrow x^9 - x^5 = 0$

$\Leftrightarrow x^5(x^4 - 1) = 0$

$\Leftrightarrow \Leftrightarrow \Leftrightarrow \begin{cases} x^5 = 0 \\ (x^4 - 1) = 0 \end{cases}$

$\Leftrightarrow \begin{cases} x = 0 \\ x^4 = 0 + 1 \end{cases}$

$\Leftrightarrow \begin{cases} x = 0 \\ x^4 = 1 \end{cases}$

$\Leftrightarrow \left[\begin{array}{l} x=0 \\ x=1 \end{array}\right.$

Bài 7

Gọi số chia là a, số bị chia là b

Theo bài ra, ta có:

$a.b : b = 7 \Leftrightarrow a = 7b$

$a : (b-124) = 3$

$\rightarrow 7b : (b-124) = 3$

$\Leftrightarrow 7b = 3(b-124)$

$\Leftrightarrow 7b = 3 \times b - 124 \times 3$

$\Leftrightarrow 7b - 3b = -372$

$\Leftrightarrow 4b = -372$

$\Leftrightarrow b = -372 : 4$

$\Leftrightarrow b = -93$

Bài 8 [6B1]

a) $\overline{abc} : 11 = a+b+c$

$\Leftrightarrow \overline{abc} : 11 \Leftrightarrow a+c = b$

$\rightarrow \overline{abc} : 11 = b+b$

$\Leftrightarrow \overline{abc} : 11 = 2b$

$\Leftrightarrow \overline{abc} : 11 = 2b \times 11$ Sai

$\Leftrightarrow \overline{abc} = 22b$

$\overline{abc}$ là số có 3 chữ số

$\rightarrow b \geq 5$

TH1 Nếu $b = 5$ thì

$\Rightarrow \overline{abc} = 22 \times 5 = 110$ (loại)

Nếu $b = 6$

$\rightarrow \overline{abc} = 22 \times 6 = 132$ (thoả mãn)

Vậy $\overline{abc} = 132$