

التمرين الأول :

(1) حلّ المتباينة

$$5 - \frac{s}{3} \leq -\frac{3}{2} s$$

$$5 + \frac{3}{2} \leq s + \frac{s}{3}$$

$$\frac{39}{8} \leq s \leq \frac{13}{2} \quad \text{إذنا } s \leq \frac{4}{3} \leq \frac{13}{2} \quad \text{الحلّ : } \left] \frac{39}{8} ; +\infty \right[$$

(2) حلّ نظام المعادلة

$$\left. \begin{array}{l} 6s - 15ص = 0 \\ 6س - 4ص = 38 - \end{array} \right\} \Leftrightarrow \left. \begin{array}{l} 2س + 5ص = 0 \\ 3س - 2ص = 19 - \end{array} \right\}$$

$$38 - 19ص = -$$

$$\boxed{ص = 2}$$

$$0 = 2س + 5(2)$$

$$2س = -10$$

$$\boxed{\text{الحلّ} = \{-2 ; 5-\}}$$

$$\boxed{س = -5}$$

(3) حلّ المعادلة

$$0 = 30 + 17س^2$$

$$169 = 120 - 289 = (30) 4 - (17 -)^2 = \Delta$$

$$13 = \sqrt{\Delta}$$

$$2 = \frac{17-13}{2} = 2س ; 15 = \frac{13+17}{2} = 1س$$

$$\boxed{\text{الحلّ} = \{2 ; 15\}}$$

التمرين الثاني :

إيجاد قيمة كلّ عدد من الأعداد الحقيقية

$$(1) \text{ لو}_2(256) \times \text{لو}_2(8192) = \text{لو}_2(256) + \text{لو}_2(8192)$$

$$21 = (8192 \times 256)_{2} \quad 21 = 13 + 8 =$$

$$16_{2} + 65536_{2} = (16 \times 65536)_{2} \quad (2)$$

$$20 = (16 \times 65536)_{2} \quad 20 = 4 - 16 =$$

$$2048_{2} - 8192_{2} = \left[\frac{8192}{2048} \right]_{2} \quad (3)$$

$$2 = \frac{8192}{2048} \quad 2 = 11 - 13 =$$

$$65536_{2} \frac{1}{2} = \sqrt{65536} \quad (4)$$

$$8 = \sqrt{65536} \quad 8 = 16 \times \frac{1}{2} =$$

$$64_{2} - 16_{2} + 65536_{2} = \frac{16 \times 65536}{64} \quad (5)$$

$$14 = \frac{16 \times 65536}{64} \quad 14 = 6 - 4 + 16 =$$

$$16_{2} + 256_{2} + 65536_{2} = \frac{256 \times 65536}{16} \quad (6)$$

$$20 = \frac{256 \times 65536}{16} \quad 20 = 4 - 8 + 16 =$$

التمرين الثالث :

$$\left. \begin{aligned} 48 &= 3 + 1 + 2 + 1 + 1 + 1 + 1 \\ 20 &= 1 - 1 - 3 + 1 \end{aligned} \right\} \Leftrightarrow \left. \begin{aligned} 48 &= 4 + 3 + 2 + 1 \\ 20 &= 2 - 4 \end{aligned} \right\}$$

$$\left. \begin{aligned} 10 &= 1 \\ 12 &= 4 \end{aligned} \right\} \Leftrightarrow \left. \begin{aligned} 10 &= 1 \\ 48 &= 6 + 4 \end{aligned} \right\}$$

$$\boxed{3 = 1} \quad \frac{12}{3} = 1 \quad \boxed{10 = 1}$$

$$\boxed{3 = 1} \quad (2)$$

$$\boxed{187 = 20} \quad 187 = 19 + 3 = 19 + 1 = 20 \quad (3)$$

$$(27 + 3) \frac{25}{2} = 27 \dots + 4 + 3 = \text{مجموع الحدود} \quad (4)$$

$$(28 + 2) \frac{25}{2} = (26 + 1 + 2 + 1) \frac{25}{2} = \text{مج}$$

$$137 \times 25 = (28 + 6) \frac{25}{2} = \text{مج}$$

$$\boxed{3425 = 27 \text{ ح إلى } 3 \text{ ح ابتداء من } 3}$$