

Elementary Division Solutions

<p>1. Prefix/Infix/Postfix</p> $ \begin{aligned} - * 5 3 / + / 6 2 * 7 3 2 &= - (5 * 3) / + (6 / 2) (7 * 3) 2 \\ &= - 15 / + 3 21 2 = - 15 / (3 + 21) 2 = - 15 / 24 2 \\ &= - 15 (24 / 2) = - 15 12 = 15 - 12 = 3 \end{aligned} $	<p>1. 3</p>
<p>2. Prefix/Infix/Postfix</p> $ \begin{aligned} 5 2 ^ 7 3 + 6 4 - * + 3 2 ^ / \\ &= (5 ^ 2) (7 + 3) (6 - 4) * + (3 ^ 2) / \\ &= 25 10 2 * + 9 / = 25 (10 * 2) + 9 / = 25 20 + 9 / \\ &= (25 + 20) 9 / = 45 9 / = 45 / 9 = 5 \end{aligned} $	<p>2. 5</p>
<p>3. Prefix/Infix/Postfix</p> $ \begin{aligned} 7 * (9 + 1 ^ 2 - 6 / 3) &= 7 * (9 + (1 2 ^) - (6 3 /)) \\ &= 7 * (9 1 2 ^ + 6 3 / -) = 7 9 1 2 ^ + 6 3 / - * \end{aligned} $	<p>3. 7 9 1 2 ^ + 6 3 / - *</p>
<p>4. Prefix/Infix/Postfix</p> $ \begin{aligned} \frac{2+6}{4} * \frac{8}{4-2} * 3^{7-5} &= ((2 + 6) / 4) * (8 / (4 - 2)) * (3 ^ (7 - 5)) \\ &= ((2 6 +) / 4) * (8 / (4 2 -)) * (3 ^ (7 5 -)) \\ &= (2 6 + 4 /) * (8 4 2 - /) * (3 7 5 - ^) \\ &= (2 6 + 4 / 8 4 2 - / *) * (3 7 5 - ^) \\ &= 2 6 + 4 / 8 4 2 - / * 3 7 5 - ^ * \end{aligned} $	<p>4. 2 6 + 4 / 8 4 2 - / * 3 7 5 - ^ *</p>
<p>5. Prefix/Infix/Postfix</p> $ \begin{aligned} 9 3 + 7 4 5 + * + 4 1 + 2 ^ / \\ &= (9 + 3) 7 (4 + 5) * + (4 + 1) 2 ^ / \\ &= (9 + 3) (7 * (4 + 5)) + ((4 + 1) ^ 2) / \\ &= ((9 + 3) + (7 * (4 + 5))) / ((4 + 1) ^ 2) \\ &= ((+ 9 3) + (* 7 + 4 5)) / (^ + 4 1 2) \\ &= (+ + 9 3 * 7 + 4 5) / (^ + 4 1 2) \\ &= / + + 9 3 * 7 + 4 5 ^ + 4 1 2 \end{aligned} $	<p>5. / + + 9 3 * 7 + 4 5 ^ + 4 1 2</p>