

- 1 digit - only 2 times
- 1 digit - only 3 times
- 1 digit - 4 times
- 2 digits - 2 times

①. $\frac{1}{1} \times \frac{1}{1} \times \frac{8}{1} \times \frac{5}{1} = 40$
 $\frac{1}{1} \times \frac{1}{8} \times \frac{1}{1} \times \frac{5}{1} = 40$
 $\frac{8}{1} \times \frac{1}{1} \times \frac{1}{1} \times \frac{1}{1} = 87$
 $\frac{7}{1} \times \frac{1}{1} \times \frac{1}{1} \times \frac{0}{4} = 28$ } + = 36
 $\text{Total} = 580$
 $①^{x2} = 40 + 40 + 36 = 116$
 $②^{x2} = 116, ③^{x2} = 116, ④^{x2} = 116, ⑤^{x2} = 116$

②. $\frac{1}{2} \times \frac{1}{2} \times \frac{8}{1} \times \frac{4}{1} = 32$
 $\frac{1}{2} \times \frac{8}{1} \times \frac{1}{2} \times \frac{4}{1} = 32$
 $\frac{1}{2} \times \frac{9}{1} \times \frac{8}{1} \times \frac{1}{1} = 72$
 $\frac{8}{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{0}{1} + \frac{7}{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{3}{1} = 8 + 21 = 29$
 $\frac{8}{1} \times \frac{1}{1} \times \frac{0}{1} \times \frac{1}{2} + \frac{7}{1} \times \frac{1}{1} \times \frac{8}{1} \times \frac{1}{2} = 64$
 $\frac{8}{1} \times \frac{8}{1} \times \frac{1}{2} \times \frac{1}{2} = 64$

$②^{x2} = 32 + 32 + 72 + 29 + 64 + 64 = 293$
 $④^{x2} = 293, ⑥^{x2} = 293, ⑧^{x2} = 293$

③. $\frac{9}{1} \times \frac{8}{1} \times \frac{1}{0} \times \frac{1}{0} = 72$
 $\frac{9}{1} \times \frac{1}{0} \times \frac{8}{1} \times \frac{1}{0} = 72$
 $\frac{8}{1} \times \frac{1}{1} \times \frac{1}{1} \times \frac{4}{1} = 32$ } + = 176

$③^{x2} = 176$

①. $\frac{1}{1} \times \frac{1}{1} \times \frac{1}{1} \times \frac{5}{1} = 5$
 $①^{x3} = 5, ②^{x3} = 5, ③^{x3} = 5, ④^{x3} = 5$
 $⑤^{x3} = 5$

②. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{4}{1} = 4$
 $\frac{1}{2} \times \frac{1}{2} \times \frac{9}{1} \times \frac{1}{2} = 9$
 $\frac{1}{2} \times \frac{9}{1} \times \frac{1}{2} \times \frac{1}{2} = 9$
 $\frac{8}{1} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = 8$ } + = 30
 $\text{Total} = 120$

$③^{x3} = 30, ④^{x3} = 30, ⑤^{x3} = 30, ⑥^{x3} = 30$

③. $\frac{9}{1} \times \frac{1}{0} \times \frac{1}{0} \times \frac{1}{0} = 9$

$③^{x3} = 9$

④. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{2} = 1$
 $④^{x4} = 1, ⑤^{x4} = 1, ⑥^{x4} = 1$
 $⑦^{x4} = 1$

④, ⑤. $\frac{1}{1} \times \frac{1}{1} \times \frac{1}{2} \times \frac{1}{2} = 1$
 $\frac{1}{1} \times \frac{1}{2} \times \frac{1}{1} \times \frac{1}{2} = 1$
 $\frac{1}{1} \times \frac{1}{1} \times \frac{1}{1} \times \frac{1}{1} = 1$

$①^{x2} ③^{x2} = 3, ①^{x2} ④^{x2} = 3, ①^{x2} ⑤^{x2} = 3$
 $①^{x2} ⑥^{x2} = 3, ②^{x2} ③^{x2} = 3, ②^{x2} ④^{x2} = 3$
 $\dots ①^{x2} ⑦^{x2} = 3$ there are 30

①, ②. $\frac{1}{1} \times \frac{1}{1} \times \frac{1}{0} \times \frac{1}{0} = 1$
 $\frac{1}{1} \times \frac{1}{0} \times \frac{1}{1} \times \frac{1}{0} = 1$

$①^{x2} ②^{x2} = 2$
 $③^{x2} ④^{x2} = 2, ⑤^{x2} ⑥^{x2} = 2$
 $⑦^{x2} ⑧^{x2} = 2, ⑨^{x2} ⑩^{x2} = 2$ } = 10

③, ④. $\frac{1}{4} \times \frac{1}{4} \times \frac{1}{2} \times \frac{1}{2} = 1$
 $\frac{1}{4} \times \frac{1}{2} \times \frac{1}{4} \times \frac{1}{2} = 1$
 $\frac{1}{2} \times \frac{1}{4} \times \frac{1}{4} \times \frac{1}{2} = 1$
 $\frac{1}{2} \times \frac{1}{4} \times \frac{1}{2} \times \frac{1}{4} = 1$
 $\frac{1}{4} \times \frac{1}{2} \times \frac{1}{2} \times \frac{1}{4} = 1$
 $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4} \times \frac{1}{4} = 1$

$③^{x2} ④^{x2} = 6, ⑤^{x2} ⑥^{x2} = 6$
 $③^{x2} ⑦^{x2} = 6, ④^{x2} ⑧^{x2} = 6, ⑤^{x2} ⑨^{x2} = 6$
 $⑥^{x2} ⑩^{x2} = 6$

③, ⑤. $\frac{1}{2} \times \frac{1}{2} \times \frac{1}{0} \times \frac{1}{0} = 1$
 $\frac{1}{2} \times \frac{1}{0} \times \frac{1}{2} \times \frac{1}{0} = 1$
 $\frac{1}{2} \times \frac{1}{0} \times \frac{1}{0} \times \frac{1}{2} = 1$

$③^{x2} ⑤^{x2} = 3, ④^{x2} ⑥^{x2} = 3$
 $⑥^{x2} ⑩^{x2} = 3, ⑧^{x2} ⑩^{x2} = 3$ } = 12

$176 + 580 + 1172 + 25 + 120 + 9 + 4 + 60 + 10 + 36 + 12 = 2028 + 176$
 $2028 + 176 = 2204$
 $2204 - 1 = 2203$ (excl. 1000) + 176 = 2379