

単位分数分解 No.1 (分母は 99 以下とする)

$$\frac{1}{a} = \frac{1}{x} + \frac{1}{y}, \quad \frac{1}{a} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

$$\frac{1}{a} = \frac{1}{x} + \frac{1}{y}$$

| a  | x  | y  |
|----|----|----|
| 2  | 3  | 6  |
| 3  | 4  | 12 |
| 4  | 5  | 20 |
| 4  | 6  | 12 |
| 5  | 6  | 30 |
| 6  | 7  | 42 |
| 6  | 8  | 24 |
| 6  | 9  | 18 |
| 6  | 10 | 15 |
| 7  | 8  | 56 |
| 8  | 9  | 72 |
| 8  | 10 | 40 |
| 8  | 12 | 24 |
| 9  | 10 | 90 |
| 9  | 12 | 36 |
| 10 | 12 | 60 |
| 10 | 14 | 35 |
| 10 | 15 | 30 |
| 12 | 14 | 84 |
| 12 | 15 | 60 |
| 12 | 16 | 48 |
| 12 | 18 | 36 |
| 12 | 20 | 30 |
| 12 | 21 | 28 |
| 14 | 18 | 63 |
| 14 | 21 | 42 |
| 15 | 18 | 90 |
| 15 | 20 | 60 |
| 15 | 24 | 40 |
| 16 | 20 | 80 |
| 16 | 24 | 48 |
| 18 | 22 | 99 |
| 18 | 24 | 72 |
| 18 | 27 | 54 |
| 18 | 30 | 45 |
| 20 | 28 | 70 |
| 20 | 30 | 60 |
| 20 | 36 | 45 |
| 21 | 28 | 84 |
| 21 | 30 | 70 |
| 22 | 33 | 66 |
| 24 | 32 | 96 |
| 24 | 33 | 88 |
| 24 | 36 | 72 |
| 24 | 40 | 60 |
| 24 | 42 | 56 |
| 26 | 39 | 78 |
| 28 | 42 | 84 |
| 28 | 44 | 77 |
| 30 | 45 | 90 |
| 30 | 48 | 80 |
| 30 | 50 | 75 |
| 30 | 55 | 66 |
| 32 | 48 | 96 |
| 35 | 60 | 84 |
| 36 | 60 | 90 |
| 36 | 63 | 84 |
| 40 | 72 | 90 |
| 42 | 78 | 91 |

$$\frac{1}{a} = \frac{1}{x} + \frac{2}{b}$$

| a  | x  | b  |
|----|----|----|
| 3  | 5  | 15 |
| 3  | 21 | 7  |
| 4  | 36 | 9  |
| 5  | 7  | 35 |
| 5  | 55 | 11 |
| 6  | 30 | 15 |
| 6  | 78 | 13 |
| 7  | 9  | 63 |
| 9  | 11 | 99 |
| 9  | 15 | 45 |
| 9  | 63 | 21 |
| 10 | 18 | 45 |
| 10 | 50 | 25 |
| 12 | 44 | 33 |
| 14 | 22 | 77 |
| 14 | 70 | 35 |
| 15 | 25 | 75 |
| 15 | 33 | 55 |
| 15 | 65 | 39 |
| 18 | 42 | 63 |
| 18 | 90 | 45 |
| 20 | 52 | 65 |

$$\frac{2}{b} = \frac{1}{y} + \frac{1}{z}$$

| b  | y  | z  |
|----|----|----|
| 5  | 3  | 15 |
| 7  | 4  | 28 |
| 9  | 5  | 45 |
| 9  | 6  | 18 |
| 11 | 6  | 66 |
| 13 | 7  | 91 |
| 15 | 9  | 45 |
| 15 | 10 | 30 |
| 15 | 12 | 20 |
| 21 | 12 | 84 |
| 21 | 14 | 42 |
| 21 | 15 | 35 |
| 25 | 15 | 75 |
| 27 | 18 | 54 |
| 33 | 21 | 77 |
| 33 | 22 | 66 |
| 35 | 30 | 42 |
| 39 | 26 | 78 |
| 45 | 30 | 90 |
| 45 | 35 | 63 |
| 45 | 36 | 60 |
| 55 | 40 | 88 |
| 63 | 56 | 72 |
| 77 | 63 | 99 |

$$\frac{1}{a} = \frac{1}{x} + \frac{3}{c}$$

| a  | x  | c  |
|----|----|----|
| 4  | 10 | 20 |
| 4  | 28 | 14 |
| 5  | 80 | 16 |
| 6  | 33 | 22 |
| 6  | 60 | 20 |
| 8  | 56 | 28 |
| 10 | 22 | 55 |
| 10 | 70 | 35 |
| 10 | 85 | 34 |
| 12 | 39 | 52 |
| 12 | 66 | 44 |
| 14 | 26 | 91 |
| 14 | 35 | 70 |
| 16 | 40 | 80 |
| 20 | 95 | 76 |

$$\frac{3}{c} = \frac{1}{y} + \frac{1}{z}$$

| c  | y  | z  |
|----|----|----|
| 4  | 2  | 4  |
| 5  | 2  | 10 |
| 8  | 3  | 24 |
| 8  | 4  | 8  |
| 10 | 4  | 20 |
| 10 | 5  | 10 |
| 14 | 5  | 70 |
| 14 | 6  | 21 |
| 14 | 7  | 14 |
| 16 | 6  | 48 |
| 16 | 8  | 16 |
| 20 | 8  | 40 |
| 20 | 10 | 20 |
| 20 | 12 | 15 |
| 22 | 8  | 88 |
| 22 | 11 | 22 |
| 25 | 10 | 50 |
| 26 | 10 | 65 |
| 26 | 13 | 26 |
| 28 | 12 | 42 |
| 28 | 14 | 28 |
| 32 | 12 | 96 |
| 32 | 16 | 32 |
| 34 | 17 | 34 |
| 35 | 14 | 70 |
| 35 | 20 | 28 |
| 38 | 19 | 38 |
| 40 | 16 | 80 |
| 40 | 20 | 40 |
| 40 | 24 | 30 |
| 44 | 20 | 55 |
| 44 | 22 | 44 |
| 46 | 23 | 46 |
| 50 | 25 | 50 |
| 52 | 26 | 52 |
| 56 | 24 | 84 |
| 56 | 28 | 56 |
| 58 | 29 | 58 |
| 62 | 31 | 62 |
| 64 | 32 | 64 |
| 65 | 30 | 78 |
| 68 | 34 | 68 |
| 74 | 37 | 74 |
| 77 | 42 | 66 |
| 80 | 48 | 60 |

$$\frac{1}{a} = \frac{1}{x} + \frac{4}{d}$$

| a  | x  | d  |
|----|----|----|
| 2  | 18 | 9  |
| 3  | 7  | 21 |
| 3  | 39 | 13 |
| 4  | 68 | 17 |
| 6  | 22 | 33 |
| 6  | 54 | 27 |
| 10 | 26 | 65 |
| 10 | 90 | 45 |
| 12 | 76 | 57 |
| 15 | 51 | 85 |
| 18 | 66 | 99 |

$$\frac{4}{d} = \frac{1}{y} + \frac{1}{z}$$

| d  | y  | z  |
|----|----|----|
| 7  | 2  | 14 |
| 9  | 3  | 9  |
| 11 | 3  | 33 |
| 15 | 4  | 60 |
| 15 | 5  | 15 |
| 15 | 6  | 10 |
| 21 | 6  | 42 |
| 21 | 7  | 21 |
| 27 | 9  | 27 |
| 33 | 9  | 99 |
| 33 | 11 | 33 |
| 35 | 10 | 70 |
| 35 | 15 | 21 |
| 39 | 12 | 52 |
| 39 | 13 | 39 |
| 45 | 15 | 45 |
| 45 | 18 | 30 |
| 49 | 14 | 98 |
| 51 | 15 | 85 |
| 51 | 17 | 51 |
| 55 | 20 | 44 |
| 57 | 19 | 57 |
| 63 | 21 | 63 |
| 63 | 28 | 36 |
| 69 | 23 | 69 |
| 75 | 25 | 75 |
| 75 | 30 | 50 |
| 81 | 27 | 81 |
| 87 | 29 | 87 |
| 91 | 35 | 65 |
| 93 | 31 | 93 |
| 99 | 33 | 99 |

$$\frac{1}{a} = \frac{1}{x} + \frac{2}{b} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

| a  | x  | y  | z  |
|----|----|----|----|
| 3  | 4  | 21 | 28 |
| 3  | 5  | 9  | 45 |
| 3  | 5  | 10 | 30 |
| 3  | 5  | 12 | 20 |
| 4  | 5  | 36 | 45 |
| 4  | 6  | 18 | 36 |
| 4  | 7  | 14 | 28 |
| 5  | 6  | 55 | 66 |
| 5  | 7  | 30 | 42 |
| 5  | 8  | 16 | 80 |
| 6  | 7  | 78 | 91 |
| 6  | 9  | 30 | 45 |
| 6  | 10 | 20 | 60 |
| 6  | 12 | 20 | 30 |
| 7  | 9  | 56 | 72 |
| 8  | 14 | 28 | 56 |
| 9  | 12 | 63 | 84 |
| 9  | 14 | 42 | 63 |
| 9  | 15 | 30 | 90 |
| 9  | 15 | 35 | 63 |
| 9  | 15 | 36 | 60 |
| 10 | 15 | 50 | 75 |
| 10 | 17 | 34 | 85 |
| 10 | 18 | 30 | 90 |
| 10 | 18 | 35 | 63 |
| 10 | 18 | 36 | 60 |
| 12 | 21 | 44 | 77 |
| 12 | 22 | 44 | 66 |
| 14 | 22 | 63 | 99 |
| 14 | 30 | 42 | 70 |
| 15 | 26 | 65 | 78 |
| 15 | 33 | 40 | 88 |
| 18 | 35 | 63 | 90 |
| 18 | 36 | 60 | 90 |
| 18 | 42 | 56 | 72 |

$$\frac{1}{a} = \frac{1}{x} + \frac{3}{c} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

| a  | x  | y  | z  |
|----|----|----|----|
| 4  | 5  | 28 | 70 |
| 4  | 6  | 21 | 28 |
| 4  | 8  | 10 | 40 |
| 4  | 10 | 12 | 15 |
| 5  | 6  | 48 | 80 |
| 6  | 8  | 33 | 88 |
| 6  | 11 | 22 | 33 |
| 8  | 12 | 42 | 56 |
| 10 | 20 | 28 | 70 |
| 12 | 20 | 55 | 66 |
| 12 | 26 | 39 | 52 |
| 16 | 40 | 48 | 60 |

$$\frac{1}{a} = \frac{1}{x} + \frac{4}{d} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

| a  | x  | y  | z  |
|----|----|----|----|
| 2  | 3  | 9  | 18 |
| 3  | 6  | 7  | 42 |
| 6  | 9  | 22 | 99 |
| 10 | 15 | 45 | 90 |
| 12 | 19 | 57 | 76 |
| 18 | 33 | 66 | 99 |

$$\frac{1}{a} = \frac{1}{x} + \frac{1}{y} + \frac{1}{z}$$

| a  | x  | y  | z  |
|----|----|----|----|
| 3  | 6  | 9  | 18 |
| 6  | 12 | 18 | 36 |
| 7  | 10 | 35 | 70 |
| 7  | 15 | 21 | 35 |
| 8  | 10 | 72 | 90 |
| 8  | 11 | 44 | 88 |
| 8  | 12 | 40 | 60 |
| 8  | 18 | 24 | 36 |
| 8  | 21 | 24 | 28 |
| 9  | 18 | 27 | 54 |
| 10 | 20 | 30 | 60 |
| 11 | 22 | 33 | 66 |
| 12 | 18 | 60 | 90 |
| 12 | 24 | 36 | 72 |
| 13 | 26 | 39 | 78 |
| 15 | 30 | 45 | 90 |
| 16 | 32 | 48 | 96 |
| 20 | 38 | 76 | 95 |

6=3+2+1  
 6=3+2+1  
 10=7+2+1  
 15=7+5+3  
 4,5,36,45  
 11=8+2+1  
 (8,10,40)(10,12,60)  
 (8,12,24)(12,18,36)  
 21=8+7+6  
 6=3+2+1  
 6=3+2+1  
 6=3+2+1  
 (12,18,36)(36,60,90)  
 6=3+2+1  
 6=3+2+1  
 6=3+2+1  
 6=3+2+1  
 6=3+2+1  
 19=10+5+4

$$\frac{1}{n(3n+2)} = \frac{1}{3n(3n+1)} + \frac{1}{3n(3n+2)} + \frac{1}{(3n+1)(3n+2)}$$

| n  | x  | y  | z  |
|----|----|----|----|
| 5  | 12 | 15 | 20 |
| 8  | 21 | 24 | 28 |
| 10 | 24 | 30 | 40 |
| 15 | 36 | 45 | 60 |
| 16 | 42 | 48 | 56 |
| 20 | 48 | 60 | 80 |
| 24 | 63 | 72 | 84 |

35+273=42+70+91+105

6 = 3 + 2 + 1 タイプ追加

|    |    |    |    |
|----|----|----|----|
| 2  | 4  | 6  | 12 |
| 4  | 8  | 12 | 30 |
| 5  | 10 | 15 | 42 |
| 7  | 14 | 21 | 48 |
| 8  | 16 | 24 | 84 |
| 14 | 28 | 42 | 84 |