Factor, solve or simplify each expression in Table I. Then, find the corresponding answer in Table II. This will give you a correspondence between a letter and a number. Use this to reveal the mystery phrase.

**Mystery phrase**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| “ | \_ | \_ | \_ | \_ |  | \_ | \_ | \_ | \_ | \_ | , |  | \_ | \_ | \_ | \_  |  | \_ | \_ | \_ | \_ | \_ | \_ | \_ | ; | " |
|  | 1 | 2 | 6 | 7 |  | 4 | 9 | 6 | 5 | 10 |  |  | 1 | 2 | 8 | 1 |  | 4 | 9 | 3 | 11 | 12 | 9 | 7 |  |  |

Table I

|  |  |  |  |
| --- | --- | --- | --- |
| OSimplify$$\left(2x^{3}-5\right)^{2}$$ | NFactor$$3y^{3}-27y$$ | ESimplify$$\left(\frac{1}{2}x^{2}y^{3}\right)^{3}⋅\left(\frac{1}{3}x^{3}\right)^{2}$$ | AFactor$$x^{2}+8x+16$$ |
| TFactor$$6x^{2}+11x-10$$ | CSolve$$1-6x=-9x^{2}$$ | B\*Solve$$x^{3}+2x^{2}=9x+18$$ | MSimplify$$\left(\frac{1}{2}x^{2}y^{3}\right)^{3}÷\left(\frac{1}{3}x^{4}\right)^{2}$$ |
| IFactor$$x^{6}-27 $$ | HFactor$$6x^{2}-5x+1$$ | SSolve$$ x^{2}-2x=0$$ | GFactor$$x^{9}+27y^{3}$$ |

Table II

|  |  |  |  |
| --- | --- | --- | --- |
| 1$$(3x-2)(2x+5)$$ | 4$$3,-3,-2$$ | 5$$3y(y+3)(y-3)$$ | 2$$(2x-1)(3x-1)$$ |
| 11$$4x^{6}-20x^{3}+25$$ | 3$$\frac{1}{3}$$ | 9$$\frac{x^{12}y^{9}}{72}$$ | 6$$(x^{2}-3)(x^{4}+3x^{2}+9)$$ |
| 7$x=0$ or $x=2$  | 10$$(x^{3}+3y)(x^{6}-3x^{3}y+9y^{2})$$ | 8$$\left(x+4\right)^{2}$$ | 12$$\frac{9y^{9}}{8x^{2}}$$ |

Some extra challenge factoring:

1. Factor: $16x^{2}+2x+\frac{1}{16}$
2. Factor: $2xy-4x^{2}-\frac{y^{2}}{4}$
3. Factor: $-x-4+\frac{x^{2}}{2}$

Factor, solve or simplify each expression in Table I. Then, find the corresponding answer in Table II. This will give you a correspondence between a letter and a number. Use this to reveal the mystery phrase.

**Mystery phrase**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| “ | \_ | \_ | \_ | \_ |  | \_ | \_ | \_ | \_ | \_ | , |  | \_ | \_ | \_ | \_  |  | \_ | \_ | \_ | \_ | \_ | \_ | \_ | ; | " |
|  | 1 | 2 | 6 | 7 |  | 4 | 9 | 6 | 5 | 10 |  |  | 1 | 2 | 8 | 1 |  | 4 | 9 | 3 | 11 | 12 | 9 | 7 |  |  |

***Pratītyasamutpāda*** (Sanskrit: प्रतीत्यसमुत्पाद), commonly translated as dependent origination.

"This being, that becomes; from the arising of this, that arises. This not being, that does not become; from the ceasing of this, that ceases." Majjhima Nikaya

Table I

|  |  |  |  |
| --- | --- | --- | --- |
| O🡺11simplify$$\left(2x^{3}-5\right)^{2}$$ | N🡺5factor$$3y^{3}-27y$$ | E🡺9Simplify$$\left(\frac{1}{2}x^{2}y^{3}\right)^{3}⋅\left(\frac{1}{3}x^{3}\right)^{2}$$ | A🡺8factor$$x^{2}+8x+16$$ |
| T🡺1factor$$6x^{2}+11x-10$$ | C🡺3Solve$$1-6x=-9x^{2}$$ | B🡺4Solve$$x^{3}+2x^{2}=9x+18$$ | M🡺12Simplify$$\left(\frac{1}{2}x^{2}y^{3}\right)^{3}÷\left(\frac{1}{3}x^{4}\right)^{2}$$ |
| I🡺6factor$$x^{6}-27 $$ | H🡺2factor$$6x^{2}-5x+1$$ | S🡺7factor$$ x^{2}-2x=0 $$ | G🡺10factor$$x^{9}+27y^{3}$$ |

Table II

|  |  |  |  |
| --- | --- | --- | --- |
| 1$$(3x-2)(2x+5)$$ | 4$$3,-3,-2$$ | 5$$3y(y+3)(y-3)$$ | 2$$(2x-1)(3x-1)$$ |
| 11$$4x^{6}-20x^{3}+25$$ | 3$$\frac{1}{3}$$ | 9$$\frac{x^{12}y^{9}}{72}$$ | 6$$(x^{2}-3)(x^{4}+3x^{2}+9)$$ |
| 7$x=0$ or $x=2$  | 10$$(x^{3}+3y)(x^{6}-3x^{3}y+9y^{2})$$ | 8$$\left(x+4\right)^{2}$$ | 12$$\frac{9y^{9}}{8x^{2}}$$ |