**Direct Proportion Codbreaker**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A | B | C | D | E | F | G | H | I | J | K | L | M |
| $$y=2x$$ | $$y=\frac{7}{2}x$$ | $$y=\sqrt{x}$$ | $$y=\frac{3}{2}x$$ | $$y=4x^{2}$$ | $$y=3x^{2}$$ | $$y=4\sqrt{x}$$ | $$y=x^{2}$$ | $$y=8x$$ | $$y=2x^{3}$$ | $$y=5\sqrt{x}$$ | $$y=6x$$ | $$y=3x$$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| N | O | P | Q | R | S | T | U | V | W | X | Y | Z |
| $$y=2x^{2}$$ | $$y=\frac{1}{2}x^{2}$$ | $$y=x$$ | $$y=9x$$ | $$y=4x$$ | $$y=\frac{5}{2}x$$ | $$y=5x$$ | $$y=2\sqrt{x}$$ | $$y=x^{3}$$ | $$y=6\sqrt{x}$$ | $$y=7x$$ | $$y=3\sqrt{x}$$ | $$y=\frac{9}{2}x$$ |

Find the equation that links $x$ and $y$ in each case, link your answers to the table above and unjumble the letters to reveal which is the densest creature in the sea:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| --- | --- | --- | --- |
| $$x$$ | $$1$$ | $$2$$ | $$3$$ |
| $$y$$ | $$6$$ | $$12$$ | $$18$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$2$$ | $$3$$ | $$5$$ |
| $$y$$ | $$16$$ | $$24$$ | $$40$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$8$$ | $$2$$ | $$5$$ |
| $$y$$ | $$20$$ | $$5$$ | $$12.5$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$1$$ | $$2$$ | $$3$$ |
| $$y$$ | $$1$$ | $$4$$ | $$9$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$1$$ | $$2$$ | $$3$$ |
| $$y$$ | $$3$$ | $$12$$ | $$27$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$2$$ | $$4$$ | $$6$$ |
| $$y$$ | $$2$$ | $$8$$ | $$18$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$6$$ | $$14$$ | $$12$$ |
| $$y$$ | $$9$$ | $$21$$ | $$18$$ |

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|  |  |  |  |
| --- | --- | --- | --- |
| $$x$$ | $$4$$ | $$16$$ | $$25$$ |
| $$y$$ | $$8$$ | $$16$$ | $$20$$ |

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|  |  |  |  |

Answer: ………………………………………………………………………………