



Polynomial Algebra - Difference of Exponents (Variables) Divided by Second Exponent - Solve

1 Find the value of z without using a calculator

$$\frac{z^{229} + z^{228}}{z^{228}} = 16$$

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|---|--------|---|--------|
| A | z = 15 | B | z = 19 |
| C | z = 13 | D | z = 12 |
| E | z = 5 | F | z = 17 |

2 Find the value of y without using a calculator

$$\frac{y^{287} - y^{286}}{y^{286}} = 13$$

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|---|--------|---|--------|
| A | y = 14 | B | y = 19 |
| C | y = 4 | D | y = 5 |
| E | y = 21 | F | y = 18 |

3 Find the value of r without using a calculator

$$\frac{r^{177} - r^{176}}{r^{176}} = 23$$

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|---|--------|---|--------|
| A | r = 38 | B | r = 24 |
| C | r = 6 | D | r = 34 |
| E | r = 32 | F | r = 20 |

4 Find the value of x without using a calculator

$$\frac{x^{253} + x^{252}}{x^{252}} = 14$$

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|---|--------|---|--------|
| A | x = 19 | B | x = 20 |
| C | x = 15 | D | x = 13 |
| E | x = 8 | F | x = 6 |

5 Find the value of m without using a calculator

$$\frac{m^{203} - m^{202}}{m^{202}} = 11$$

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|---|--------|---|--------|
| A | m = 12 | B | m = 3 |
| C | m = 5 | D | m = 13 |
| E | m = 16 | F | m = 2 |

6 Find the value of m without using a calculator

$$\frac{m^{492} + m^{491}}{m^{491}} = 8$$

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|---|--------|---|--------|
| A | m = 7 | B | m = 1 |
| C | m = 10 | D | m = 16 |
| E | m = 9 | F | m = 5 |

7 Find the value of n without using a calculator

$$\frac{n^{365} - n^{364}}{n^{364}} = 12$$

- | | | | |
|---|--------|---|--------|
| A | n = 13 | B | n = 22 |
| C | n = 9 | D | n = 21 |
| E | n = 7 | F | n = 8 |

8 Find the value of r without using a calculator

$$\frac{r^{460} - r^{459}}{r^{459}} = 10$$

- | | | | |
|---|--------|---|--------|
| A | r = 13 | B | r = 2 |
| C | r = 9 | D | r = 11 |
| E | r = 16 | F | r = 20 |