

Algebra TEST

Match the following exponential form with the correct expanded form

- | | | |
|----------|----------------------|--|
| 1) 4^5 | <input type="text"/> | <input type="text"/> $B \times B \times B$ |
| 2) B^3 | <input type="text"/> | <input type="text"/> $5 \times 5 \times 5 \times 5 \times 5$ |
| 3) 5^4 | <input type="text"/> | <input type="text"/> $4 \times 4 \times 4$ |
| 4) B^5 | <input type="text"/> | <input type="text"/> 1 |
| 5) 6^0 | <input type="text"/> | <input type="text"/> $B \times B \times B \times B \times B$ |
| | | <input type="text"/> $4 \times 4 \times 4 \times 4 \times 4$ |

Evaluate each exponent

- | | | | |
|----------------------|----------------------|----------------------|----------------------|
| 6) 4^3 | 7) 15^1 | 8) 85^0 | 9) $\frac{W^5}{W^2}$ |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Plug and chug ... Evaluate each expression for the given value of the variable

- | | |
|---------------------------------|------------------------------------|
| 10) $3x - 4$ $X = 5$ | 11) $f(x) = 3(x - 2) + 3$ $f(2) =$ |
| <input type="text"/> | <input type="text"/> |
| 12) $\frac{3x - 15}{3}$ $X = 4$ | 13) $5P^2 - 30 + 2P$ $P = 5$ |
| <input type="text"/> | <input type="text"/> |

Match the expression with its equivalent

- | | | |
|--------------------------|----------------------|-------------------------------|
| 14) $5B - 3B - 2 + 7$ | <input type="text"/> | <input type="text"/> $2B + 2$ |
| 15) $-2B + 12 + 4B - 10$ | <input type="text"/> | <input type="text"/> $2B + 5$ |
| 16) $2(B - 2) + 3B - 1$ | <input type="text"/> | <input type="text"/> $5B - 5$ |

Solve the following equation or inequality

17) $G - 5 = 15$

G=

18) $2R + 15 = 7$

R=

19) $1 + 3M = 12$

M=

20) $\frac{Y}{5} + -8 = -4$

Y=

21) $P - 4 > 14$

P

22) $2A + 10 < 16$

A

23-25

I took my wife out for our anniversary dinner (our anniversary is actually feb 22!). We went to a nice Italian restaurant, Kimberly and I ordered the same dish then at the end of the meal tipped our server \$10.

Write an algebraic expression that would describe our bill

Our total bill Tip included was \$85, Write an algebraic equation that you could use to determine the cost of each of our dishes.

Solve the equation. How much was my dish?