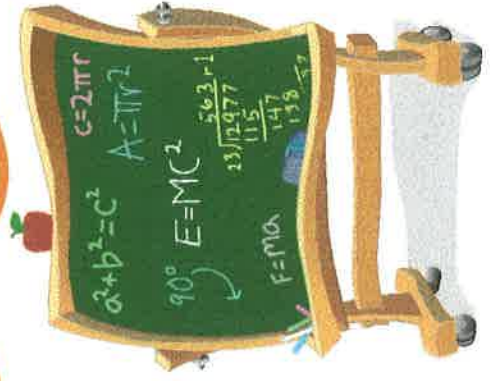
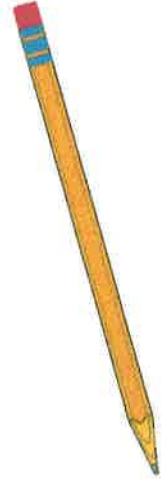


MATH

MADNESSES

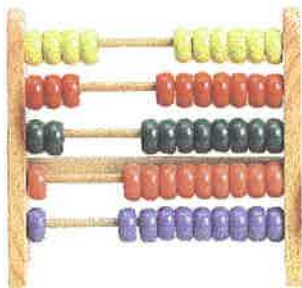


Ashleigh Ward $\frac{3}{4}$ orange

95

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P.E.M.D.A.S

The first step to solving an equation is simplifying with pemdas. This tells you what order to follow and gives you the correct answer.

1. P- parentheses
2. E- exponents
3. M- multiplication
4. D- division
5. A- addition
6. S- subtraction

multiplication and division are done in the order in which they appear. The same is true for addition and subtraction, but multiplication and division are still done before addition and subtraction.

Try These:

1. $4 - 5(9 + 6) + 8 - 20$

2. $20 - 10 - (9 - 6) + 2 - 1$

3. $13(9 - 11) - 4 + 12 + 1$

4. $15 - 6 + 12 - 10 - 34$

5. $67 - 70 + 2(5 - 6) + 1$

6. $3(9 - 4) + 21$

$3(9 - 3) - 6^2 + 7 - 8$

1. $3(6) - 6^2 + 7 - 8$
2. $3(6) - 36 + 7 - 8$
3. $18 - 36 + 7 - 8$
4. $-18 + 7 - 8$
4. $-11 - 8$ ans. -19
4. -19

Answers in back

One Step Equations

The first step is to make sure you have simplified using PEMDAS.

Next you must collect like terms and get the variable by itself

Do the opposite of what is being done to the variable
Multiplication do division \div
Add + do - Subtract

EX. $3-4=x$

ans. $-1=x$

$x+6=2$ subtract 6 from both sides

~~$x+6=2$~~

~~$-6 -6$~~

$x=-4$

Try These:

1. $5-2=x$

2. $2+3=x$

3. $x+2=3$

4. $5-3=x$

5. $7+x=20$

6. $8-30=x$



Q: what's purple and commutes?

A: an abelian grape

answers in back

Two Step Equations

First you must simplify using PEMDAS. Then get all the variables together and finally get the variable by itself by doing the opposite of what is being done to it.

$+ = -$ $() = -$

EX. $3x - 4 = 2$

~~$3x - 4 = 2$~~

~~$+4 +4$~~

$3x = 6$

3 3

ans. $x = 2$



Try These:

1. $4x + 4 = 5$

2. $8x - 2 = 8$

3. $7x - 6 = -10$

Q: what does the mermaid math teacher wear?

A: an alge-bra

Complex Equations

First you must simplify using PEMDAS. Then get all the variables together and finally get the variable by itself by doing the opposite of what is being done to it.

$$+ = - \quad () = -$$



$$\text{EX. } 3x + 6x - 2(4 - 6) = 1 - 4x$$

$$9x - 2(4 - 6) = 1 - 4x$$

$$9x - 2(-2) = 1 - 4x$$

$$9x + 4 = 1 - 4x$$

$$+4x \quad +4x$$

$$13x + 4 = 1$$

$$-4 \quad -4$$

$$\underline{13x = -3}$$

$$13 \quad 13$$

ans. 3/13

Try These:

1. $1 + 12x - (9 - 2) = x$

2. $8x - 2(3 - 5) = 9 - x$

3. $19x = 3 - 14x(12 - 4)$

Q: why did the mathematician name his dog Cauchy?

A: because he left residue at every pole

answers in back

Fractions+Complex Equations

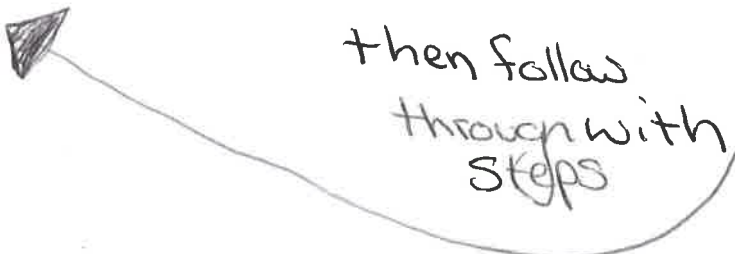
First you must simplify using PEMDAS. Then get all the variables together and finally get the variable by itself by doing the opposite of what is being done to it.

$$+ = - \quad () = -$$

EX. $(\sqrt{2}x + 3 + 4x = \sqrt{3}x + \frac{2}{3})6$

$$3x + 18 + 24x = 2x + 4$$

then follow through with steps



There is also an extra trick with fractions to help you. First you must get rid of the parentheses. Then you multiply the entire equation by the least common multiple.

Try These:

1. $\frac{3}{4}x + \frac{1}{2} - 2 + 5 = \frac{3}{8}$

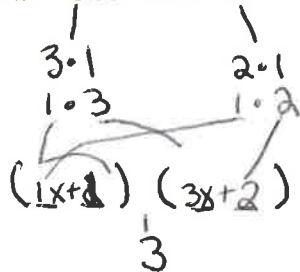
2. $\frac{1}{2} + \frac{2}{3}x = 1$

3. $\frac{3}{4} - \frac{8}{10}x = 4$

De F.O.I.L.

You defoil when your polynomial is not a special product. When you defoil you have to play guess and check. You take the first and the last terms and plug them in to see if they will give you the middle term.

EX. $3x^2 + 5x + 2$



Doesn't work

$(1x+2)(3x+1)$
3
2 yes Ans

F.O.I.L.
+ 3 + 2 + 1 + 2
+ 3 + 2 + 1 + 2
+ 3 + 2 + 1 + 2
+ 3 + 2 + 1 + 2



Answers

Pg ①

2. 10

5. 17

Pg ②

1. $x = 3$

3. $x = 1$

Pg ③

2. $1\frac{1}{4}$

Pg ④

1. $\frac{6}{11}$

Pg ⑤

2. $-\frac{1}{2}$

Pg ⑥

2. $14x^2 - 17x - 45$

Pg ⑧

2. $2(4+5x)$

5. $(5^2+6)(5^2-6)$

