

MasterMath

Name _____
Date _____

1. Solve for x: $3x + 6 - x + 8 = 16$

$x = 1$

2. Solve for x: $7(4 - 2x) + 16 + 2x = 12$

$x = 2 \frac{2}{3}$

3. Solve for x: $4(3x + 2) - 2(3x - 3) = 0$

$x = -2 \frac{1}{3}$

4. $y = 6$. Solve $4(x + 2y) - 4y = 12$

$x = -3$

5. Twenty-three less than 6 times the quantity of a number (x) decreased four equals seven. Find the number.

$x = 9$

6. List the steps you would take to solve this equation. Your steps should describe what you would do, for example: "Combine Like Terms".

$6(2x - 12) + 18 + 4x = 11$

| | |
|--------|---------------------------|
| Step 1 | Use Distributive Property |
| Step 2 | Combine Like Terms |
| Step 3 | Isolate the Variable |

7. It costs \$5 to become a new member of a book club. There is a \$10 charge per book ordered and tax is 7% on the books and the membership fee. Shipping and handling is free for all members. How many books were purchased (x) by a new member if the total bill comes to \$58.85?



| Expression | Solution |
|-------------------------|----------|
| $(5 + 10x)1.07 = 58.85$ | $x = 5$ |

8. You are twice as old as your brother. You are 7 years older than your brother. How old is your brother (b)?

| Expression | Solution |
|--------------|----------|
| $2b - 7 = b$ | $b = 7$ |

9. Solve for z: $2(z + 2) - 5 = 7$

$z = 3$