

Name _____ Section/Period _____
Assigned: _____

Solve each of the following for the variable. If answer is not a whole number, leave as a mixed number in simplest form. Then graph each solution on a number line.

1. $2x+3=7$

2. $3x+4=8$

3. $5x+3=2x$

4. $3x-4=-4x$

5. $7x+6=7x-5$

6. $6x+17=2(4x+7)$

7. $3x-5-2x=7+3x-2x+4x-5x$

Solve each of the following for the variable. Round to the nearest hundredths if needed. Then graph each solution on a number line.

8. $4y+5=2(3+y)$

9. $1.5p+5=8p-4$

10. $17x-3=4x-2$

11. $102\Psi+7=2\Psi$

12. $3x+5=5$

13. $3x-3x=4$

14. $7x+5=10$

15. $2x+6=49$

Solve each of the following for the indicated variable:

16. $Ax+By=C$ for y

17. $y=mx+b$ for m

18. $d=b^2-4ac$ for a

19. $E=.5mv^2$ for m

20. $m(ar+tb)=qz$ for b

21. When solving to a variable, it is sometimes helpful to use the opposite of the distributive property. For example, if we wanted to solve $Ax+Bx=C$ for x . Since $x(A+B)=Ax+Bx$, we can rewrite the equation as $x(A+B)=C$. Since this is the same as before, and we want to solve for x , we can now divide by $(A+B)$, treating this as a single variable. We would then get $x=C/(A+B)$.

Solve the following equation for t .

$$Ar+yt=2t-u$$