

STUDY LINK
9•6

Expressions and Equations



Solve.

1. $3x + 9 = 30$ $x =$ _____ 2. $73 = \frac{1}{2}(108 + f)$ $f =$ _____
3. $55 = (9 - d) * 11$ $d =$ _____ 4. $(m * 15) + (m * 6) = 42$ $m =$ _____

Simplify these expressions by combining like terms.

5. $8y + 27 + 6y + (-4)$ _____ 6. $7b + 17 - 9b + 15$ _____
7. $3f - 80 + 25 - 10k$ _____ 8. $240 + 5g + 3(10g - 5)$ _____

Circle all expressions that are equivalent to the original. There may be more than one.
 Check your answer by substituting values for the variable.

9. Original: $3r + 17 - 2r + 6$

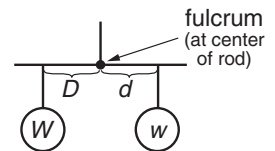
$5r + 23$ $23 - r$ $r + 23$ $13 + r$

10. Original: $8(9 + b) - 4b$

$89 - 3b$ $72 - 3b$ $4b + 72$ $72 - (-4b)$

Try This

11. The top mobile is in balance. The fulcrum is at the center of the rod. A mobile will balance when $W * D = w * d$.



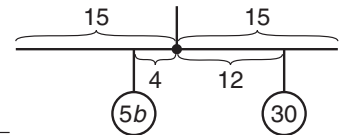
Look at the bottom mobile. What is the weight of the object on the left?

Write and solve an equation to answer the question.

$W =$ _____ $D =$ _____ $w =$ _____ $d =$ _____

Equation _____ Solution _____

The weight of the object on the left is _____ units.


Practice

12. $8\frac{1}{3} - 2\frac{7}{8}$ _____ 13. $3\frac{5}{6} * 24$ _____ 14. $25 \div 4\frac{3}{8}$ _____