

Directions: *Show all work. Place answer on the blank line next to problem number.*

Solve for the unknown:

_____ 1. $14x = 42$

_____ 2. $\frac{a}{6.4} = -1.5$

_____ 3. $9n + 23 = 5$

_____ 4. $\frac{2z}{3} - 7 = -9$

_____ 5. $\frac{1}{4}(d - 5) = 1$

_____ 6. $7 - 3(x + 2) = 4$

_____ 7. $-4(2w - 5) = 3w - 13$

_____ 8. $9(4h - 6) = 2(-13 - 2h)$

_____ 9. $\frac{1}{2}x + \frac{2}{3} = \frac{1}{3}x - \frac{3}{2}$

_____ 10. $6.8t - 10 - 3.2t = 3t - 1$

_____11. $\frac{y}{6} = \frac{15}{9}$

_____12. $\frac{p-25}{140} = \frac{12}{42}$

_____13. How many solutions (one, many, none) are there for the equation:
 $2(-3x+4) = -6x+8$

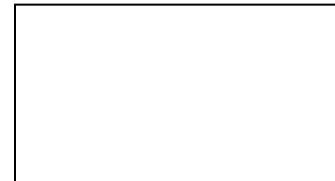
_____14. How many solutions (one, many, none) are there for the equation:
 $8x-7 = 14+2x$

_____15. How many solutions (one, many, none) are there for the equation:
 $-7x-8 = -(7x+3)$

_____16. Solve for w :
 $P = 2l + 2w$

_____17. Solve for m :
 $y = mx + b$

_____18. A rectangle has perimeter of 48 and sides of $2x-4$, and 7.
Write an equation for perimeter and solve for x .



_____19. A circle has circumference of 32 inches. Find the radius, r .
Round to **two** decimal places.
**Use the formula $C = 2\pi r$ **

20. Central High's enrollment decreases at an average rate of 55 students per year, while Washington High's enrollment increases at an average rate of 70 students per year. Central High has 2176 students and Washington High has 1866 students. If enrollments continue to change at the same rate, when will the two schools have the same number of students?

Choose your variable: _____

Equation: _____

Work:



Answer question: _____

21. You want to buy a set of golf clubs. The original price is \$150 and they are on sale for 15% off. Find the following...

_____ a) What is the discount amount?

_____ b) What is the sale price?

