

Cumulative Review

"A"

Problems

QUARTER #1 REVIEW

Identify the property:

① If $a+7=2c$ and $b=7$,
then $a+b=2c$

② $a(m+n) = am + an$

Write an algebraic
expression:

③ The sum of three more
than twice a number and
five less than the number.

Evaluate each expression:

$$a = -2$$

$$b = -1$$

$$c = +3$$

④ $2ab^2 - 3bc$

⑤ $2b^3 - 3(ac-b)$



Simplify each expression:

⑥ $8xy - 3x(2x - 4y) - 2x^2$

⑦ $4a(a-2b) - 3b(a+2b) + b^2$

Solve each equation:

⑧ $\frac{3n-4}{8} = 3n+10$

⑨ $5(3n-2) = 4(n+4) + 3n - 2$

Solve the inequality:

⑩ $\frac{n+5}{3} < \frac{4(3n-1)}{12}$

Solve and graph:

⑪ $2n-9 \leq 3n-4 < n+8$

⑫ $2x+3 \leq 7$ or $3(x-4) > 6$

Solve for n:

⑬ $3n - 2m = mn + 4$

Define a variable, set up
an equation, and solve:

⑭ Mrs. Benson is four times
as old as her son Nick.
Six years ago, Mrs. Benson
was three times as old as
Nick will be two years
from now. How old was
Nick last year?

⑮ Twice a number
increased by
12 is 31 less
than 3 times
the number.
Find the
number.



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- ⑩ Sam's backyard is 25 m longer than it is wide. It can be enclosed by 170 m of fencing. What is the yard's area?
- ⑪ \$85.69 is $104\frac{1}{2}\%$ of what?
- ⑫ If tires are on sale at 20% off, what is the original price for a set of tires on sale for \$128?
- ⑬ Three times an even integer decreased by two is between 8 and 24. Find the integer.
- ⑭ Alex earns a regular salary of \$400 a week plus 4% commission on sales. If he takes home \$520, what were his sales for the week?

WHAT'S THAT? OH NO, MY DEAR. EVEN THOUGH YOU ARE JUST A LASAGNA, I ADMIRE YOU FOR YOUR MIND



Solve and graph:

- ⑮ $|4n - 6| > 10$
- ⑯ $\ln|-3| \leq -4$
- ⑰ $|n - 5| + 3 < 8$

"B" Problems

QUARTER #1 REVIEW

Identify the property:

- ① $3mn (\frac{1}{3}mn) = 1$
- ② If $-7ax^2 = 3y$, then $3y = -7ax^2$

Write an algebraic expression for the following:

- ③ The product of three less than a number and two more than the square of the same number.

Evaluate each expression:
 $x = -1, y = 4, z = -2$

- ④ $-x^2 - 3xy$
- ⑤ $\frac{2xy^2 + 8z}{4x^3y}$



Simplify each expression:

- ⑥ $3x(2y - x) - 2x(3x + y)$
- ⑦ $\frac{-12m - 20mn}{8m}$

Solve each equation:

- ⑧ $3(a - 4) - 5a = a + 3$
- ⑨ $6 - \frac{3n}{2} = 9 - 2n$

Solve the inequality :

⑩ $4(x-3) \geq 8(x-1)$

Solve and graph :

⑪ $n+6 < 3n+10 \leq n+16$

⑫ $a-3 \leq 4$ or $3(a-2) < 5a-2$

Solve for x :

⑬ $4(x-3y) = xy + y^2$

Define a variable, set up an equation, and solve :

⑭ Alice is half Fay's age. 6 years ago, Fay was 3 times as old as Alice was 4 years ago. How much older is Fay than Alice ?

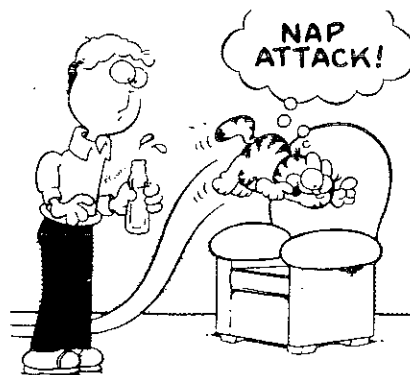
⑮ Twice the smallest of three consecutive even integers decreased by three times the middle integer is negative two. Find the middle integer.

⑯ Two sides of an isosceles triangle are two inches less than twice the base. If the perimeter is 26, find the base.

⑰ What is $22\frac{1}{2}\%$ of 140 ?

⑱ Sharon saved \$10.80 on

a bookcase. If the bookcase was on sale for 15% off, how much did she pay ?



⑲ Find a negative odd integer such that 6 more than 4 times the integer is greater than -7 and less than 19. Find the integer.

⑳ Julia earns a salary of \$225 per week plus a 5% commission on sales. Over a three week period, Julia took home \$815. What were her sales ?

Solve and graph on a number line :

㉑ $|6x-6|-2 \leq 16$

㉒ $|n-1|+4 > 2$

㉓ $|3n-6| > 15$

