Instructions: Answer each question on loose leaf, quad-ruled (graph paper), headed properly and written in lead-graphite. Remember to fold paper along the center, work exercises in order top to bottom, left column then right column. Staple multiple pages

Evaluate: round your solutions to the nearest 10th

1. $8.78 + 9.65$

2. $14.73 - 9.95$

3. $(7.9)(8.4)$

4. $2004 \div 15$

5. Evaluate; write solutions as either a mixed number if the decimal repeats, or a terminating decimal.

   a) $11 - 2\frac{3}{5}$ b) $4\frac{2}{3} - 2\frac{7}{9}$ c) $\frac{9}{5} - 1\frac{1}{4}$ d) $3.75 - 2.\overline{6}$

6. Re-write each expression using the Definition of Subtraction, then add:

   a) $7 - (-9) =$ b) $12 - 19 =$ c) $-8 - (-15) =$ d) $8 + (7 - 13) =$ e) $13 - (12 - 16)$

7. Simplify:

   a) $6 - 2(x - 5)$ b) $5 - 7(3 - 2x)$ c) $6x - 4(3 - 2x)$ d) $3x - 4(2 - 5x) + 13$

8. Solve for the unknown: express solutions as either mixed numbers if the decimal repeats, or terminating decimals.

   a) $\frac{2}{3}n - 3 = -8$ b) $6 - \frac{4}{7}p = -3$ c) $\frac{8}{5}t - 3 = -12$ d) $5 - 6q = -12$

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9. Identify the slope and y-intercept of the following slope-intercept form equations:
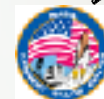
   a. $y = 3x - 2$ b. $y = -4x + 1$ c. $y = x - 5$ d. $y = -\frac{3}{8}x$

10. Gv1 pg. 220 #'s 2, 3, 4, 5

11. In the coordinate plane at right; determine the slopes of the stated lines:
    a)   b)   c)   d)

12. From the slope of letter 'd', what can we say generally about the slope of a horizontal line?

13. The height a ball bounces varies directly with how high from which it is dropped. A ball bounces 30cm when dropped from a height of 50cm. How high will the ball bounce if dropped from a height of 120cm?

14. Solve the following equations for 'y' in terms of 'x':

    A) $x + y = 2$ B) $2x + 3y = 6$ C) $x - 2y = 4$ D) $8x - 6y = 0$
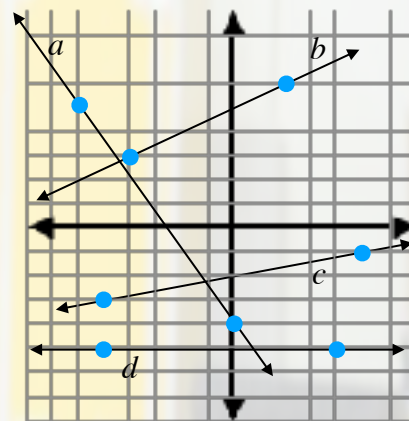
15. The next CA Powerball™ lottery is $550,000,000. The average LAUSD teacher salary is $75,000.
    a) Write each in scientific notation.
    b) How many times larger is the Lottery to the teacher salary? Express your answer in standard form and scientific notation, rounded to the nearest 10th.

16. Solve: $2(-3x + 4) = -5x + 8 - x$

17. Solve: $8(4q - 1) - 12q = 11(2q - 6)$

18. A square has an area of $529m^2$; what is the square's perimeter?

19. A cube has a volume of $3,375 in^3$; what is the cube's surface area?

20. Write as exponents positive: $\dfrac{-15u^6v^5}{-9u^8v^{-2}}$

21. Multiply; write as exponents positive: $6ab(3a^2b)^4$

22. In scientific notation, what is the sum of $4.7 \cdot 10^8 - 3.141 \cdot 10^7$?

23. Evaluate $(2.4 \cdot 10^6)(6.4 \cdot 10^{-2})$; write in scientific notation.

24. Estimate the quotient: $\dfrac{\sqrt{40}}{\sqrt{70}}$

25. Estimate the difference: $\sqrt{200} - \sqrt{100}$

26. Solve $E = \dfrac{1}{2}mv^2$ for 'v' in terms of E and m.

27. State the property that justifies each step of the following solution:

$2x + 3y = 3$

$2x - 2x + 3y = -2x + 3$

$0 + 3y = -2x + 3$

$3y = -2x + 3$

$y = \dfrac{-2x}{3} + \dfrac{3}{3}$

$y = -\dfrac{2x}{3} + 1$