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

1. GV1 pg. 175, #8
2. Gv1 pg. 176, #10
3. GV1, pg. 177, #16
4. Gv1 pg. 177, #18
5. In a graph of *distance* vs. *time,* distance is along the vertical ('y') or horizontal ('x') axis?
6. For any graph of two variables stated as *a versus b,* or *a to b,* The first value is always along which axis? Horizontal (x) or Vertical (y)? The second value is always along which axis? Horizontal (x) or Vertical (y)?

7. State the property represented by the following statement:
$$4 - 2x = 4 + (-2x)$$

8. State the property that justifies each step of the following solution:
$$4x - 2(3 - x) = 7x + 5$$
$$4x + {}^-2(3 + {}^-x) = 7x + 5$$
$$4x + 6 + 6x = 7x + 5$$
$$4x + 6x + 6 = 7x + 5$$
$$10x + 6 = 7x + 5$$
$$10x + {}^-7x + 6 = 7x + {}^-7x + 5$$
$$3x + 6 = 0 + 5$$
$$3x + 6 = 5$$

9. $\dfrac{34}{60} = $; write as a decimal rounded to the nearest 100th.

10. $3 - \dfrac{5}{4} = $; write as an improper fraction and a decimal rounded to nearest 10th.

11. Write as a fraction, reduced: $3.1\overline{4}$
12. Translate into a math statement: *"Mass is the product of density and volume."*
13. In Chuck Berry's rendition of *"Route 66"* he plays a guitar solo that lasts for 96 beats over 24 bars. What is the rate of beats per bar?
14. Gv1 pg. 157 #10
15. Gv1 pg. 159 # 20
16. Gv1 pg. 160 #24

17. Write as exponents positive: $\dfrac{12x^4 y^{-3}}{8x^{-4} y^2}$

18. Write as exponents positive: $5x^{-4} y^{-2} \cdot 8y^{-4} x^3$

19. Solve: $n - \dfrac{3}{2} = 4$; keep your solution reduced and improper where appropriate.

20. Solve: $-\dfrac{4}{7}c = -\dfrac{10}{21}$; write as an improper fraction where appropriate and a decimal rounded to the nearest 10th.
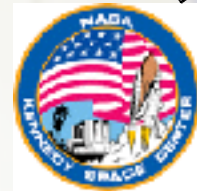
21. Solve: $\dfrac{2}{5}n + 3 = -14$; keep solution reduced and improper where appropriate.

22. Solve: $8 - \dfrac{5}{8}x = -6$; keep solution reduced and improper where appropriate.

23. Solve: $5 - 4(3 - 2x) = -1$; keep solution reduced and improper where appropriate.

24. Solve: $8 - 7(6 + 5n) = 4 - 3n$; keep solution reduced and improper.

25. Solve: $x^2 = 17$
$$x = $$

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26. $x^2 = 361$

$x =$

27. A square has an area of $441m^2$; what is the square's perimeter?

28. $x^3 = -117$

$x =$

29. $x^3 = -343$

$x =$

30. A cube has a volume of $512in^3$; what is the cube's surface area?

31. $(7.25 \cdot 10^5) + (8.4 \cdot 10^4) =$; write in scientific notation

32. $\dfrac{1.2 \cdot 10^{-5}}{4.8 \cdot 10^{-8}} =$; write in scientific notation.

33. Estimate the difference: $\sqrt{80} - \sqrt{40}$

34. Solve: $7x - \dfrac{1}{8}(32 - 48x) - 11 = -12$; keep solution reduced and improper

35. Solve: $5n - \dfrac{1}{6}(18 - 30n) - 7 = 2n - 3(5 - 7n) + 11$; keep solution reduced and improper.

36. Find three consecutive odd integers such that the sum of the smallest and 4 times the largest is 61.

37. $S = 2B + F$

$B =$

38. $V = \dfrac{1}{3}Bh$

$h =$

39. The rainfall this year was 18.6cm, which is 3.2 cm less than half of the rainfall last year. What was the rainfall last year?

40. Mr. Ford's 4th Period has 30 students. The number of girls is 10 more than the boys. Write *two* equations from the facts given in this scenario.