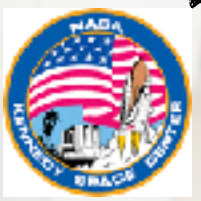
N3CS19 Practice Set 34

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

Identify the property represented by the statement.

1. $20 \bullet (5 \bullet 17) = (20 \bullet 5) \bullet 17$
2. $(12a)\frac{1}{6} = (a \bullet 12)\frac{1}{6}$
3. $7x + 4x + 1 = 1 + 7x + 4x$
4. $8 + (5 + k) = (8 + 5) + k$
5. $-6(x - 7 + 2y) = -6x + 42 - 12y$
6. #***PushTheEnvelope:*** $-18x - 30y + 12 = -6(3x + 5y - 2)$
7. If $16 = 4^2, 4^2 = 16$
8. $-13 + 0 = -13$
9. $-17 \bullet 1 = -17$
10. $x + 17 - 17 = 41 - 17$
11. Write as a rate: 360 seconds in 6 minutes
12. Write as a unit rate: 720 seconds in 12 minutes
13. Write as a unit rate: 128 ounces per 16 cups.
14. Write as a unit rate: 452 students per 22 teachers; if needed, round *up* to the nearest student.
15. Glencoe Vol 1., pg. 175 #2
16. Glencoe Vol 1. (GV1) pg. 175, #4
17. #***PushTheEnvelope:*** Show mathematically using *units only* that Miles traveled equals the product of miles per hour and hours traveled.



18. $\frac{17}{30} =$; write as a decimal rounded to the nearest 100th.
19. $2 + \frac{5}{4} =$; write as an improper fraction and a decimal rounded to nearest 10th.
20. Write as a fraction, reduced: $0.5\overline{7}$
21. Write as a fraction, reduced: $0.\overline{246}$
22. Translate into a math statement: *"4 less than three-fourths the sum of a number and 5 is 8 more than six times the number."*
23. Solve: $n - 7 = -13$
24. Solve: $x + 8 = -15$
25. Write as exponents positive: $\frac{b^{-12}}{b^{-7}}$
26. Write as exponents positive: $c^{-14} \bullet c^{8}$
27. Solve: $6a = 19$; keep solution reduced and improper.
28. Solve: $-7b = 30$; write as a reduced mixed number.
29. Solve: $-\frac{3}{8}c = -4$; write as a decimal rounded to the nearest 10th.
30. Solve: $6n + 7 = -14$; keep solution reduced and improper.
31. Solve: $6 - 7x = 8$; keep solution reduced and improper.
32. Solve: $4 - 3(2 - x) = -3$; keep solution reduced and improper
33. Solve: $5 - 2(4 + 3n) = 8 - 2n$; keep solution reduced and improper.
34. Solve: $x^2 = 17$

    $x =$

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35. Solve: $x^3 = -100$
$x =$

36. $\frac{6 \bullet 10^5}{8 \bullet 10^{-2}} =$; write in standard form and scientific notation.

37. Estimate the sum: $6 + \sqrt{60}$

38. Solve: $10n - \frac{1}{13}(26 - 13n) + 12 = -2$; keep solution reduced and improper

39. Solve: $7x - 5(3 - 2x) = 7x - \frac{1}{8}(32 - 48x) - 11$; keep solution reduced and improper

40. Find three consecutive integers such that the sum of twice the smallest and 3 times the largest is 126.

41. $PV = mRT$ *hint: your solution has only letters in it!*
$T =$

42. $P = \frac{V}{W}(T - D)$ *hint: your solution has only letters in it!*
$T =$

43. Amanda and Jonathan own a business. They check their sales receipts 3 times a day. One day their afternoon sales were $50 more than their morning sales, and the evening sales were three times the afternoon sales. If their total sales were $1,000, what were their evening sales?

44. The diameter of a small pizza is 16 centimeters. This is 2 centimeters more than two fifths of the diameter of a large pizza. Determine the diameter of the large pizza.

45. Use the data in the red kettle bell in the photo describing the Moon's mass to determine the Earth's mass; write your solution in standard form and scientific notation.