

Study Guide Test 2

Date _____

Identify the property that each statement represents.

1) $5 + 4 + 6 = 4 + 6 + 5$

3) $18(4 \cdot 10) = (18 \cdot 4)10$

5) $26(4 + 130) = 26(4) + 26(130)$

7) $\frac{1}{3} \cdot 3 = 1$

9) $4x + 5 - 5 = 17 - 5$

2) $18(4)(10) = (4)(18)(10)$

4) $(4 + 130) + 246 = 4 + (130 + 246)$

6) $4x + -4x = 0$

8) $1,230,000 + 0 = 1,230,000$

10) $15x = 30$

$30 = 15x$

Write each number in scientific notation.

11) 0.000489

13) 94

15) 28000

17) 0.000011

19) 7590000

12) 0.071

14) 0.00000752

16) 0.0076

18) 520

20) 0.034

Write each number in standard notation.

21) 1.03×10^1

23) 6.9×10^{-1}

25) 3.8×10^2

27) 6.2×10^1

29) 7.44×10^4

22) 8.5×10^5

24) 7.79×10^3

26) 1.8×10^{-1}

28) 8.3×10^{-2}

30) 8×10^{-1}

Simplify. Write each answer in scientific notation.

31) $(8.5 \times 10^3)(5.6 \times 10^{-1})$

33) $(7 \times 10^5)(2 \times 10^1)$

35) $(9.32 \times 10^5)(9.7 \times 10^{-5})$

37) $(4.52 \times 10^3)(9.3 \times 10^4)$

39) $(6 \times 10^0)(4.4 \times 10^4)$

32) $(1.1 \times 10^0)(3 \times 10^5)$

34) $(2.4 \times 10^1)(8.52 \times 10^{-5})$

36) $(6 \times 10^0)(7.3 \times 10^1)$

38) $(7.8 \times 10^3)(7.2 \times 10^6)$

40) $(4.9 \times 10^{-2})(4 \times 10^2)$

Find each perfect square root.

41) $\sqrt{81}$

43) $\sqrt{4}$

45) $\sqrt{49}$

47) $-\sqrt{144}$

49) $\sqrt{1}$

42) $\sqrt{225}$

44) $-\sqrt{100}$

46) $-\sqrt{169}$

48) $-\sqrt{196}$

50) $\sqrt{9}$

Find each square root. The answer should be to the hundredth.

51) $\sqrt{113}$

53) $\sqrt{120}$

55) $\sqrt{126}$

57) $\sqrt{133}$

59) $\sqrt{139}$

52) $\sqrt{117}$

54) $\sqrt{123}$

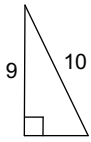
56) $\sqrt{130}$

58) $\sqrt{136}$

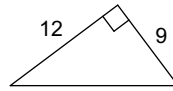
60) $\sqrt{143}$

Find each missing length. Round to the nearest tenth.

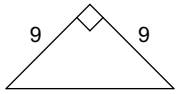
61)



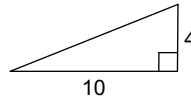
62)



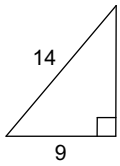
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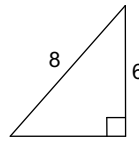
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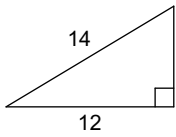
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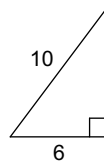
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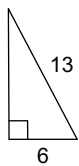
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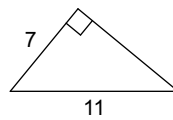
68)



69)

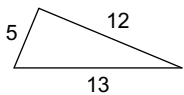


70)

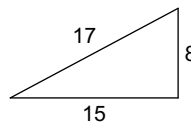


Do the following lengths form a right triangle?

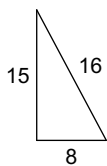
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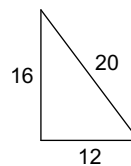
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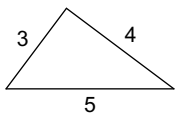
73)



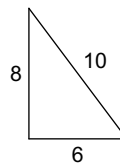
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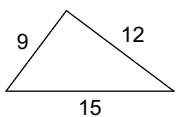
75)



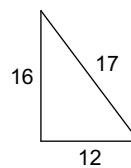
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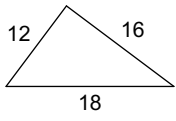
77)



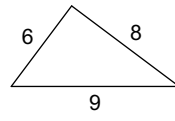
78)



79)



80)



Answers to Study Guide Test 2

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|---|-------------------------------------|---|--------------------------|
| 1) Commutative Property of Addition | | 2) Commutative Property of Multiplication | |
| 3) Associative Property of Multiplication | | 4) Associative Property of Addition | |
| 5) Distributive Property | 6) Additive Inverse | 7) Multiplicative Inverse | |
| 8) Identity Property of Addition | 9) Subtraction Property of Equality | | |
| 10) Symmetric Property | 11) 4.89×10^{-4} | 12) 7.1×10^{-2} | |
| 13) 9.4×10^1 | 14) 7.52×10^{-6} | 15) 2.8×10^4 | 16) 7.6×10^{-3} |
| 17) 1.1×10^{-5} | 18) 5.2×10^2 | 19) 7.59×10^6 | 20) 3.4×10^{-2} |
| 21) 10.3 | 22) 850000 | 23) 0.69 | 24) 7790 |
| 25) 380 | 26) 0.18 | 27) 62 | 28) 0.083 |
| 29) 74400 | 30) 0.8 | 31) 4.76×10^3 | 32) 3.3×10^5 |
| 33) 1.4×10^7 | 34) 2.045×10^{-3} | 35) 9.04×10^1 | 36) 4.38×10^2 |
| 37) 4.204×10^8 | 38) 5.616×10^{10} | 39) 2.64×10^5 | 40) 1.96×10^1 |
| 41) 9 | 42) 15 | 43) 2 | 44) -10 |
| 45) 7 | 46) -13 | 47) -12 | 48) -14 |
| 49) 1 | 50) 3 | 51) 10.63 | 52) 10.81 |
| 53) 10.95 | 54) 11.09 | 55) 11.22 | 56) 11.40 |
| 57) 11.53 | 58) 11.66 | 59) 11.78 | 60) 11.95 |
| 61) 4.4 | 62) 15 | 63) 12.7 | 64) 10.8 |
| 65) 10.7 | 66) 5.3 | 67) 7.2 | 68) 8 |
| 69) 11.5 | 70) 8.5 | 71) Yes | 72) Yes |
| 73) No | 74) Yes | 75) Yes | 76) Yes |
| 77) Yes | 78) No | 79) No | 80) No |