

math answers

1. (B)

$$\begin{array}{r|l} \$15,750 & \\ \hline \$225,000 & 7\% \\ \times & \end{array}$$

$$\begin{array}{r|l} \$12,375 & \\ \hline \$225,000 & 5.5\% \\ \times & \end{array}$$

$$\begin{array}{r} \$15,750 \\ - 12,375 \\ \hline \$3,375 \end{array}$$

2. (C)

$$\begin{array}{r|l} \$21,000 \div & \\ \hline \$300,000 & 7\% \end{array}$$

3. (D)

2% + 1.5% = 3.5% Agent's share
6% - 3.5% = 2.5% Broker's share

$$\begin{array}{r|l} \$4,375 & \\ \hline \$175,000 & 2.5\% \\ \times & \end{array}$$

4. (D)

$\$8,225 \times 2 = \$16,450$ total commission paid

$$\begin{array}{r|l} \div \$16,450 & \\ \hline \$235,000 & 0.07 \text{ or } 7\% \end{array}$$

5. (B)

$$\begin{array}{r|l} \$7,500 & \\ \hline \$125,000 & 6\% \\ \times & \end{array}$$

$$\begin{array}{r|l} \$3,000 & \\ \hline \$7,500 & 40\% \\ \times & \end{array}$$

6. (C)

7% - 2% - 1.5% = 3.5% to the broker

$$\begin{array}{r|l} \$6,650 & \\ \hline \$190,000 & 3.5\% \\ \times & \end{array}$$

7. (A)

$$\begin{array}{r|l} \$12,750 & \\ \hline \$425,000 & 3\% \\ \times & \end{array}$$

$$\$12,750 + 2,995 = \$15,745$$

8. (C)

$$\begin{array}{r|l} \$6,000 & \\ \hline \$100,000 & 6\% \\ \times & \end{array}$$

$$\begin{array}{r|l} \$5,000 & \\ \hline \$100,000 & 5\% \\ \times & \end{array}$$

$$\begin{array}{r|l} \$2,000 & \\ \hline \$50,000 & 4\% \\ \times & \end{array}$$

$$\begin{array}{r} \$ 6,000 \\ 5,000 \\ + 2,000 \\ \hline \$13,000 \end{array}$$

9. (D)

$$\begin{array}{r} \$2,500 \times 2 = \$5,000 \\ \hline \$71,428.57 \quad | \quad 7\% \end{array}$$

10. (D)

$$\begin{array}{r} \$3,500 \div \\ \hline \$5,933.33 \quad | \quad 60\% \end{array} \qquad \begin{array}{r} \div \$5,833.33 \\ \hline \$83,333 \quad | \quad 0.07 \text{ or } 7\% \end{array}$$

11. (A)

$$100\% - 6\% = 94\% \text{ Seller's percent} \qquad \begin{array}{r} \$470,000 \div \\ \hline \$500,000 \quad | \quad 94\% \end{array}$$

12. (B)

$$100\% - 6\% = 94\% \text{ Seller's percent} \qquad \begin{array}{r} \$200,000 \div \\ \hline \$212,765.95 \quad | \quad 94\% \end{array}$$

13. (D)

$$\begin{array}{r} 100\% \\ - 6\% \\ \hline 94\% \end{array} \qquad \begin{array}{r} \$149,850 \\ + 550 \\ \hline \$150,400 \end{array} \qquad \begin{array}{r} \$150,400 \div \\ \hline \$160,000 \quad | \quad 94\% \end{array}$$

14. (A)

$$\begin{array}{r} 100\% \\ - 7\% \\ \hline 93\% \end{array} \qquad \begin{array}{r} \$20,000 \\ 35,250 \\ + 400 \\ \hline \$55,650 \end{array} \qquad \begin{array}{r} \$55,650 \div \\ \hline \$59,838.71 \quad | \quad 93\% \end{array}$$

15. (C)

$$\begin{array}{r} 100\% \\ - 6.5\% \\ \hline 93.5\% \end{array} \qquad \begin{array}{r} \$104,500 \\ + 12\% \\ \hline \$117,040 \end{array} \qquad \begin{array}{r} \$117,040 \div \\ \hline \$125,176.47 \quad | \quad 93.5\% \end{array}$$

16. (B)

$$\begin{array}{r} \$90,000 \div \\ \hline \$1,125,000 \quad | \quad 0.08 \text{ (8\%)} \\ \times \end{array}$$

17. (C)

$$\$48,000 \times 2 = \$96,000 \qquad \begin{array}{r} \div \$96,000 \\ \hline \$1,250,000 \quad | \quad 0.0768 \text{ or } 7.68\% \end{array}$$

18. (D)

$$\begin{array}{r} \$55,575 \\ - 5,500 \\ \hline \$50,075 \end{array} \qquad \begin{array}{r} \$50,075 \div \\ \hline \$500,750 \quad | \quad 10\% \end{array}$$

19. (D)

$$\begin{array}{r} \$67,200 \\ \hline 112 \quad | \quad \$600 \\ \times \end{array}$$

20. (B) $\$150,000 + 5\% + 5\% + 5\% = \$173,643.75$ or $\$173,644$

21. (B) $\$175,000 - 3\% - 3\% = \$164,657.50$ or $\$164,658$

22. (C)

$$\begin{array}{r} \$250,000 \\ - \quad 8\% \\ \hline \$230,000 \end{array} \qquad \begin{array}{r} \$230,000 \\ + 50,000 \\ \hline \$280,000 \end{array}$$

23. (D)

$$\begin{array}{r} \$250,000 \\ \times \quad 2 \\ \hline \$500,000 \end{array} \qquad \begin{array}{r} \$500,000 \\ - \quad 20\% \\ \hline \$400,000 \end{array}$$

24. (C)

$$\begin{array}{r} \$165,000 \\ + 16,500 \\ + 10,000 \\ \hline +191,000 \end{array} \qquad \begin{array}{r} \$240,000 \\ - \quad 7\% \\ \hline \$223,200 \end{array} \qquad \begin{array}{r} \$223,200 \\ - 191,500 \\ \hline \$ 31,700 \end{array}$$

25. (B)

$$\begin{array}{r} \$250,000 \\ + 10,000 \\ \hline \$260,000 \end{array} \qquad \begin{array}{r} \$325,000 \\ - \quad 7\% \\ \hline \$302,250 \\ - 250 \\ \hline \$302,000 \end{array} \qquad \begin{array}{r} \$302,000 \\ - 260,000 \\ \hline \$ 42,000 \end{array}$$

26. (A)

$$\begin{array}{r} \$550 \times 12 \times 3 = \$19,800 \\ \$600 \times 12 \times 3 = \$21,600 \\ \$650 \times 12 \times 3 = \underline{\$23,400} \\ \$64,800 \end{array} \qquad \begin{array}{r} \$64,800 \\ + 2,400 \\ \hline \$67,200 \end{array} \qquad \begin{array}{r} \$67,200 \\ - \quad 4\% \\ \hline \$64,512 \end{array} \qquad \begin{array}{r} \$64,512 \\ - 5,000 \\ \hline \$59,512 \end{array} \qquad \begin{array}{r} \$59,512 \div \\ \$661,244 \quad | \quad 0.09\% \end{array}$$

27. (C)

$$\begin{array}{r} 5 \times \$550 \times 12 = \$33,000 \\ 5 \times \$600 \times 12 = \underline{\$36,000} \\ \$69,000 \\ - \quad 8\% \\ \$63,480 \\ \$250 \times 12 = - 3,000 \\ \hline \$60,480 \end{array} \qquad \begin{array}{r} \$60,480 \div \\ \$756,000 \quad | \quad 8\% \end{array}$$

28. (B)

$\frac{\$117,978 \div}{\$111,300 \mid 100\%}$	$\frac{\$111,300 \div}{\$105,000 \mid 100\%}$
$\frac{+ 6\%}{106\%}$	$\frac{+ 6\%}{106\%}$

29. (C)

$\frac{\$98,250 \div}{\$103,421 \mid 100\%}$	$\frac{\$103,421 \div}{\$108,864 \mid 100\%}$
$\frac{- 5\%}{95\%}$	$\frac{- 5\%}{95\%}$

30. (A)

$\$1 \div 100 = 0.01$ Tax rate

$\frac{\$1,250}{\$125,000 \mid 0.01}$
\times

31. (D)

$\$4.25 \div 100 = 0.0425$

$\frac{\$59,150}{\$169,000 \mid 35\%}$	$\frac{\$2,513.875 \div 12 = \$209.49}{\$59,150 \mid 0.0425}$
\times	\times

32. (A)

$95 \div 1,000 = 0.095$

$\frac{\$19,893}{\$52,350 \mid 38\%}$	$\frac{\$1,889.83 \div 4 = \$472.45}{\$19,893 \mid 0.095}$
\times	\times

33. (A)

$\frac{\$29,250}{\$65,000 \mid 45\%}$	$\frac{\$511.88}{\times 2}$	$\frac{\div \$1,023.76}{\$29,250 \mid 0.035}$	$\frac{0.035}{\times 100}$
\times	$\frac{\$1,023.75}{\times 2}$	\times	$\frac{\$3.50}{\times 100}$

34. (B)

$\$4.50 \div 100 = 0.045$

$\frac{\$1,968.76 \div}{\$43,750 \mid 0.045}$	$\frac{\$43,750 \div}{\$175,000 \mid 25\%}$
\times	\times

$\$984.38 \times 2 = \$1,968.76$

35. (D)

Beginning Date: September 14, 2005
 Prorate Date: January 25, 2006
 Ending Date: September 13, 2006
 January 25–30 = 5 days
 February–August = 210 days
 September = 13 days
 Total = 228 days
 $\$504 \div 360 = \$1.40 \times 228 = \mathbf{\$319.20}$

36. (C)

Beginning Date: November 15, 2005
 Prorate Date: July 11, 2006
 Ending Date: November 14, 2006
 July 11–13 = 19 days
 August 2006–October 2007 = 450 days
 November = 14 days
 Total = 483 days
 $\$890 \div 720 = \$1.22 \times 483 = \mathbf{\$589.26}$

37. (B)

January 1 The taxes were paid in advance, so count from June 23 through December 30.
 June 23 June 30 – 23 = 7 days
 December 30 July through December = $30 \times 6 = 180$ days
 $180 + 7 = 187$ days
 $\$2,345 \div 360 = \6.5139 daily tax
 $187 \times \$6.5139 = \mathbf{\$1,218.10}$ credit to seller at closing

38. (B)

January through March	90 days
April 13	+13 days
Total	<u>103 days</u>

$\$3,355 \div 360 = \9.32 per day
 $103 \times \$9.32 = \mathbf{\$959.96}$

39. (C) July 1 – 11 = 11 days

$\$450 \div 180 = \2.50

$\$ 2.50$
 $\times \underline{11}$
 $\$27.50$ DS, CB

40. (D)

February 26	February 30 – 26 = 4 days	$\$6,000 \div 360$	\$16.67
February 30		$\$75,000 \mid 8\%$	$\times 4$
		\times	<u>$\\$66.68$</u>

41. (B)

$\frac{\$236,000}{\$295,000 \mid 80\%}$	$\frac{\$16,520}{\$236,000 \mid 7\%}$	$\$16,520 \div 365 = \45.26 (31 – 5 = 26 days)
\times	\times	$\times \underline{26}$
		$\\$1,176.76$

42. (D)

April 1	April 1 – 20 = 20 days	$\frac{\$4,125 \div 360}{\$50,000 \mid 8.25\%}$	= \$11.46	$\frac{\$11.46 \times 20}{\$229.20}$
April 20		×		

43. (B)

$\frac{\$71,600}{\$89,500 \mid 80\%}$	$\frac{\$89,500}{-71,600}$	$\frac{\$716}{\$71,600 \mid 1\%}$	
×	\$17,900	×	
			\$ 716 discount points 716 original fee 350 insurance +17,900 down payment \$19,682

44. (A)

$\frac{\$1,103.31 \div 12 = \$91.94}{\$12,259 \mid 9\%}$	$\frac{\$124.34}{-91.94}$	$\frac{\$12,259.00}{-32.40}$	$\frac{\$244.53}{\$12,226.60 \mid 2\%}$
×	\$ 32.40	\$12,226.60	×

45. (C)

$$\frac{\div \$131,250}{\$175,000 \mid 0.75 \text{ or } 75\%}$$

46. (D)

$$\frac{\$82,250 \div}{\$102,812.50 \mid 80\%}$$

47. (A)

$$\frac{\$790}{\$79,000 \mid 1\%}$$

×

48. (B)

$$\frac{\$17,640 \div}{\$252,000 \mid 7\%}$$

49. (B)

$\$4,387.50 \times 2 = \$8,775$ annual interest

$$\frac{\$8,775 \div}{\$135,000 \mid 6.5\%}$$

50. (A)

$\frac{\$3,800}{\$190,000 \mid 2\%}$	$\frac{\$1,710}{\$3,800 \mid 45\%}$
×	×

51. (B)

$$\begin{array}{r} \$1,340.63 \\ \times \quad 4 \\ \hline \$5,362.52 \end{array} \qquad \begin{array}{r} \div 5,362.52 \\ \hline \$65,000 \mid 8.25\% \\ \times \end{array}$$

52. (C)

$$\begin{array}{r} \$3,000 \\ +2,000 \\ \hline \$5,000 \end{array} \qquad \begin{array}{r} \div \$5,000 \\ \hline \$100,000 \mid 0.05 \text{ or } 5 \text{ points} \\ \times \end{array}$$

53. (A)

$$\begin{aligned} 0.125 \times 3 &= 0.375 \\ 8\% + 0.375 &= 8.375\% \end{aligned}$$

54. (D)

$$\begin{array}{r} \$55,000 \\ - \quad 3\% \\ \hline \$53,350 \end{array} \qquad \text{or} \qquad \begin{array}{r} \$1,650 \\ \hline \$55,000 \mid 3\% \\ \times \end{array} \qquad \begin{array}{r} \$55,000 \\ - 1,650 \\ \hline \$53,350 \end{array}$$

55. (C)

$$\begin{array}{r} \$9,750 \\ \hline \$150,000 \mid 6.5\% \\ \times \end{array} \qquad \begin{array}{r} \$10,500 \\ \hline \$150,000 \mid 7\% \\ \times \end{array} \qquad \begin{array}{r} \$10,500 \\ - 9,750 \\ \hline \$ 750 \end{array}$$

56. (A)

$$\begin{array}{r} \$7,585 \\ \hline \$82,000 \mid 9.25\% \\ \times \end{array} \qquad \$7,585 \div 12 = \$632.08 \qquad \begin{array}{r} \$674.59 \\ - 632.08 \\ \hline \$ 42.51 \end{array}$$

57. (A)

$$\begin{array}{r} \$121,500 \\ \hline \$135,000 \mid 90\% \\ \times \end{array} \qquad \begin{array}{r} \$103,275 \\ \hline \$121,500 \mid 85\% \\ \times \end{array} \qquad \begin{array}{r} \$9,294.75 \div 12 = \$774.56 \\ \hline \$103,275 \mid 9\% \\ \times \end{array}$$

58. (C)

$$\begin{array}{r} \$ 585.75 \\ \times \quad 12 \\ \hline \$7,028.40 \end{array} \qquad \begin{array}{r} \$7,028.40 \div \\ \hline \$80,324.57 \mid 8.75\% \\ \times \end{array} \qquad \begin{array}{r} \$80,324.57 \div \\ \hline \$89,249.52 \mid 90\% \\ \times \end{array}$$

59. (B)

$$\begin{array}{r} \$80,000 \\ - 77,600 \\ \hline \$ 2,400 \end{array} \qquad \begin{array}{r} \div 2,400 \\ \hline \$80,000 \mid 3 \text{ pts.} \\ \times \end{array} \qquad \begin{aligned} 0.125 \times 3 &= 0.375 \\ 8.25\% + 0.375 &= 8.625\% \end{aligned}$$

60. (A)

$$\begin{aligned} A &= 3.1416 \times 25' \times 25' \\ A &= 1,963.5 \text{ sq. ft.} \times \$120 = \$235,620 \end{aligned}$$

61. (D) $640 \div 4 \div 4 \div 2 = 20$ acres (See page 121 for explanation)
 $20 \times \$2,500 = \$50,000$

62. (B) $9 \div 10 = 90\%$
 $43,560 \times 90\% = 39,204$
 $39,204 \div 150 = 261.36$

63. (D)

$A = 25' \times 50'$	$A = 20' \times 20'$	$2,500$	$2,900 \div 9 =$	322.222
$A = 1,250$ sq. ft.	$A = 400$ sq. ft.	$+ 400$	$\$9.95 + 2.50 =$	$\times 12.45$
$\times 2$		$2,900$		$\$4,011.67$
$2,500$				

64. (D)

$20' \times 25' = 500$ sq. ft.	$1,617 \div 9 = 179.6667$ square yards
$18' \times 20' = 360$ sq. ft.	$179.667 \times \$9.95 = \$1,787.68$ for entire house
$14' \times 26' = 364$ sq. ft.	
$15' \times 15' = 225$ sq. ft.	
$12' \times 14' = 168$ sq. ft.	
Total $1,617$ sq. ft.	

65. (A) $200' \times 300' = 60,000$ sq. ft. $\div 43,560 = 1.3774$ acres
 $1.3774 \times \$150,000 = \$206,610$
 $\$206,610 \times 8\% = \$16,528.80$ or $\$16,529$

66. (B)

$A = 30' \times 80'$	$V = 30' \times 80' \times 15'$	$\$99,000$
$A = 2,400$ sq. ft.	$V = 36,000$ cubic ft.	$-\$84,000$
$\times \$35$	$\times \$2.75$	$\$15,000$
$\$84,000$	$\$99,000$	

67. (A) $5,280 \times 5,280 = 27,878,400$
 $27,878,400 \div 43,560 = 640$
 $511.23 \times 511.23 = 261,356.1129$
 $261,356.1129 \div 43,560 = 5.9999$
 $640 + 5.9999 = 645.9999$
 $645.9999 \times \$2,000 = \$1,291,999$

68. (B)

$5'' \div 12'' = 0.4167'$	$60.9423 \div 27 = 2.2571$ cubic yds.
$V = 45' \times 3.25' \times 0.4167'$	
$V = 60.9423$ cubic ft.	

69. (B)

$A = [(300' + 400') \div 2] \times 200'$	$70,000 \div 43,560 = 1.6070$ acres
$A = (700' \div 2) \times 200'$	$1.6070 \times \$4,000 = \$6,427.91$ or $\$6,428$
$A = 350' \times 200'$	
$A = 70,000$ sq. ft.	

70. (A) $A = 35' \times 40'$

$$A = 1,400 \text{ sq. ft.}$$

$$A = [(15' + 40') \div 2 \times 25']$$

$$A = 687.5 \text{ sq. ft.}$$

$$\begin{array}{r} 1,400 \\ + 687.5 \\ \hline 2,087.5 \end{array}$$