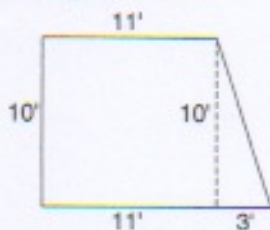


## ANSWER KEY: MATH REVIEW TEST

1. \$62,000 sales price  $\times$  7% commission  
 $= \$62,000 \times 0.07 = \$4,340$ , broker's commission  
 $\$4,340 \times 25\% = \$4,340 \times 0.25 = \$1,085$

Correct answer: **1** (160)

2. See Figure 12.12.



**Figure 12.12**

$11' \times 10' = 110$  square feet, area of rectangle

$\frac{1}{2}(3' \times 10') = \frac{1}{2}(30') = 15$  square feet, area of triangle

$110 + 15 = 125$  square feet, total area

Divide by 9 to convert square feet to square yards.

$125 \div 9 = 13.89$  square yards

$\$14.95 + \$3.50$  installation = \$18.45, cost per square yard

$\$18.45 \times 13.89$  square yards = \$256.27

Correct answer: **4** (162–163)

3. \$40,000 first investor + \$20,000 second investor = \$60,000  
 $\$150,000 - \$60,000 = \$90,000$  third investor's contribution

$\frac{\text{part}}{\text{total}} = \text{percent}$

$\$90,000 \div \$150,000 = 0.60$ , or 60%

Correct answer: **1** (160–161)

4.  $\$582.84 \times 12 = \$6,994.08$  annual interest

$\frac{\text{part}}{\text{percent}} = \text{total}$

$\$6,994.08 \div 12\% = \$6,994.08 \div 0.12 = \$58,284$

Correct answer: **2** (159–161)

5.  $\$102,900 \times 4\% = \$102,900 \times 0.04 = \$4,116$ , annual increase in value.

$\$102,900 + \$4,116 = \$107,016$ , current market value

Correct answer: **4** (160–161)

Read your calculator carefully. Answer choices with the same number combinations can be misleading.

6.  $\$75,000 \times 80\%$  OR  $\$75,000 \times 0.80 = \$60,000$  in taxable value

Divide by 1,000 because tax rate is stated per \$1,000.

$\$60,000 \div 1,000 = \$60$

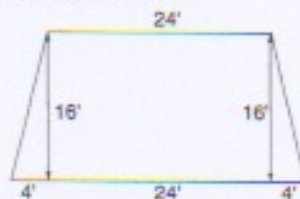
$\$60 \times 32.50 = \$1,950$ , annual taxes

Divide by 12 to get monthly taxes.

$\$1,950 \div 12 = \$162.50$

Correct answer: **4** (161)

7. See Figure 12.13.



**Figure 12.13**

$24' \times 16' = 384$  square feet, area of rectangle

$\frac{1}{2}(4' \times 16') = \frac{1}{2}(64') = 32$  square feet, area of one triangle

$32 \times 2 = 64$  square feet, area of two triangles

$384 + 64 = 448$  square feet, surface area to be paved

6" deep =  $\frac{1}{2}'$

$448 \times .5 = 224$  cubic feet of concrete required for patio

Correct answer: **4** (162–164)

8.  $\$7,350 - \$500 \text{ salary} = \$6,850 \text{ commission on sales}$   
 $\$6,850 \div 2.5\% = \$6,850 \div 0.025 = \$274,000$ ,  
 value of property sold  
 Correct answer: 3 (159–160)

9. See Figure 12.14.

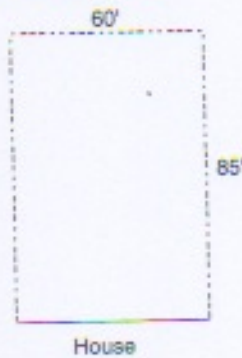


Figure 12.14

Two sides of 85' plus one side of 60'

$$85' \times 2 = 170 \text{ feet}$$

$$170 + 60 = 230 \text{ linear feet}$$

$$230 \times \$7.25 = \$1,667.50$$

Correct answer: 4 (162)

10.  $\$6,000 \times 12 = \$72,000 \text{ annual return}$   
 $\$72,000 \div 9\% = \$72,000 \div 0.09 = \$800,000$ ,  
 original cost of property  
 Correct answer: 1 (165–166)
11.  $\$1,860 \div 12 \text{ months} = \$155 \text{ per month}$   
 $\$155 \div 30 \text{ days} = \$5.167 \text{ per day}$   
 $\$155 \times 3 \text{ months} = \$465$   
 $\$5.167 \times 15 \text{ days} = \$77.505$   
 $\$465 + \$77.505 = \$542.505$ , rounds to  
 $\$542.51$   
 Correct answer: 2 (166–167)
12.  $\$65,400 \times 11\% \text{ OR } \$65,400 \times 0.11 = \$7,194$   
 $\$7,194 \div 360 \text{ days} = \$19.9833 \text{ per diem cost}$   
 September 1 through 14 = 14 days  
 $14 \text{ days} \times \$19.9833 = 279.7662$ , rounds to  
 $\$279.77$   
 Correct answer: 1 (166–167)

13.  $\$740 \div 3 \text{ years} = \$246.667 \text{ per year}$   
 $\$246.667 \div 12 = \$20.556 \text{ per month}$   
 $\$20.556 \div 30 \text{ days} = \$0.685 \text{ per day}$   
 $\$20.556 \times 7 \text{ months} = \$143.892$   
 $\$0.685 \times 20 \text{ days} = \$13.70$   
 $\$143.892 + \$13.70 = \$157.592$ , rounds to  
 $\$157.59$

Correct answer: 4 (166–167)

14.  $\$1,630 \div 12 \text{ months} = \$135.833 \text{ per month}$   
 $\$135.833 \div 30 \text{ days} = \$4.528 \text{ per day}$   
 $\$4.528 \times 26 \text{ days} = \$117.728$   
 $\$135.833 + \$117.728 = \$253.561$ , rounds to  
 $\$253.56$

Correct answer: 2 (166–167)

The taxes have been paid. The seller is entitled to a refund for 1 month and 26 days. He therefore will receive a credit and the buyer will be charged (debited) for the same amount.

15.  $\$64,750 \times 12\% = \$64,750 \times 0.12 = \$7,770$   
 $\$7,770 \div 12 \text{ months} = \$647.50$   
 $\$647.50 \div 30 \text{ days} = \$21.583 \text{ per day}$   
 $\$21.583 \times 18 \text{ days} = \$388.494$ , rounds to  
 $\$388.49$   
 Correct answer: 2 (166–167)
16.  $43,560 \text{ square feet/acre} \times 200 \text{ acres} =$   
 $8,712,000$ , total square feet  
 $8,712,000 \text{ square feet} \times \frac{1}{8} = 8,712,000 \times$   
 $0.125 = 1,089,000 \text{ square feet for streets}$   
 $8,712,000 - 1,089,000 = 7,623,000 \text{ square}$   
 feet for lots  
 $7,623,000 \text{ square feet} \div 220 \text{ lots} = 34,650$   
 square feet per lot  
 Correct answer: 1 (160)

17. Time period: 2 months (November/December)  
 $\$2,140 \text{ per year} \div 12 = \$178.33 \text{ per month}$   
 $\$178.33 \times 2 = \$356.67$   
 Correct answer: 3 (166–167)
18. Part = \$28,000, Percent = 6%  
 part  $\div$  percent = total  
 $\$28,000 \div .06 = \$466,667$   
 Correct answer: 2 (159–160)
19. part  $\div$  percent = total  
 $\$80,000 \div 0.93 = \$86,021.5$ , rounds to \$86,022  
 Correct answer: 2 (160–161)
20.  $\$59,200 \times .07 = \$4,144.00$  annual interest  
 $\$4,144 \div 12 = \$345.33$  interest for one month  
 $\$623.00 \text{ (P\&I)} - 345.33 = \$277.67$  principal payoff  
 $\$59,200 - \$277.67 = \$58,922.33$  balance after next payment  
 Correct answer: 3 (168–170)
21. \$1,486.50 ( $150,000 \times 9.91$ )  
 Correct answer: 2 (168)
22.  $\$1,486.50 \times 360 \text{ months} = \$535,140$  (total P&I) – \$150,000 (P) = \$385,140  
 Correct answer: 2 (168)
23. The payment chart indicates 8.25 percent loans are 7.51 per \$1,000.  
 $\$990 \text{ affordable monthly payment} \div 7.51 = 131,824.23$   
 $\$131.82423 \times 1,000 = \$131,824.33$  maximum loan amount  
 $\$131,824.33$  plus down payment = \$145,824.33 maximum selling price of house.  
 Correct answer: 3 (168–169)
24.  $\$300,000 \div 50 \text{ years} = \$6,000$  annual depreciation charge  
 $\$6,000 \times 18 \text{ years} = \$108,000$  current total depreciation  
 Correct answer: 3 (165)
25.  $I \div R = V$   
 $\$40,000 \div 9\% (0.09) = \$444,444$   
 Correct answer: 1 (165–166)
26. Divide \$1,500 by the 7% factor of 6.65.  
 $1,500 \text{ divided by } 6.65 = 225.56 \times 1000 = 225,564$   
 Next divide \$1,500 by the 6½% factor of 6.32.  
 $1,500 \div 6.32 = 237.34 \times 1000 = 237,342$ .  
 The difference is  $237,342 - 225,564 = \$11,778$ .  
 Correct answer: 1 (168–169)
27.  $200 \text{ (thousands)} \times 6.00 = \$1,200$   
 Correct answer: 1 (168–169)
28.  $\$200,000 \times 6\% = \$12,000$  divided by 12 months = \$1,000. The difference then is  $\$1,200 \text{ (PI)} - \$1,000 \text{ (I)} = \$200 \text{ (P)}$   
 Correct answer: 2 (168–169)
29.  $\$380 \text{ divided by } \$900 = .422$  or 42.2%.  
 Correct answer: 2 (168)
30.  $\$5,000 \times 36\% = \$1,800$ .  $\$1,800 - 750 = \$1,050$ .  
 Correct answer: 1 (168)
31.  $\$700 \text{ divided by } 6.65 = \$105.26 \times 1,000 = \$105,263$   
 Correct answer: 3 (168)
32. Together these items are referred to as PITI.  
 Correct answer: 4 (168–170)
33. This elementary process is utilized every day in the real estate business.  $\$1,800 \text{ (PITI)} \times 75\% = \$1,350 \text{ (PI)}$   
 Correct answer: 1 (168)

34. The payment is  $100 \text{ (thousands)} \times 6.65$  or \$665. This amount then is multiplied by 360 months to discover the total amount spent on PI payments.  $665 \times 360 = \$239,400$ . Next, subtract the amount borrowed (\$100,000) to find the solution of \$139,400.  
Correct answer: 3 (168–169)
35. The payment is  $100 \text{ (thousands)} \times 8.98$  or \$898. This amount then is multiplied by 180 months to discover the total amount spent on PI payments.  $898 \times 180 = \$161,640 - \$100,000 \text{ (original loan)} = \$61,640$   
Correct answer: 1 (168–169)
36.  $\$1,300 \text{ divided by } 6.65 = \$195.49 \times 1,000 = \$195,489$   
Correct answer: 3 (168–169)
37.  $\$1,300 \text{ divided by } 6.49 = \$200.31 \times 1,000 = \$200,308$   
Correct answer: 3 (168–169)
38. First find the loan amount. \$15,000 divided by 10% = \$150,000  
Then subtract the down payment of \$15,000 to arrive at the loan amount of \$135,000.  
 $\$135,000 \times .52\% = \$702$  divided by 12 months = \$58.50 each month for PMI.  
Correct answer: 1 (168–169)
39.  $\$200,000 \times 2\% = \$4,000$ . Buyer's closing costs on a VA loan include an origination fee, the financed funding fee, and actuals. The VA waives the funding fee for disabled veterans.  
Correct answer: 4 (168–169)
40.  $\$135,000 \times 1.5\% = \$2,025$ . A portion of this amount is refunded if the property is resold within seven years.  
Correct answer: 4 (168–169)

## ANSWER KEY: MATCHING QUIZ

- |      |       |       |       |
|------|-------|-------|-------|
| 1. E | 6. C  | 11. I | 16. M |
| 2. F | 7. K  | 12. O | 17. N |
| 3. A | 8. P  | 13. H |       |
| 4. B | 9. D  | 14. G |       |
| 5. J | 10. Q | 15. L |       |