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## BUSINESS CALCULATIONS

### Overview

Acquiring a high level of mathematics skill to solve business problems is a challenge for all prospective business employees. This event provides recognition for FBLA members who have an understanding of mathematical functions in business applications.

This is an individual objective test.

### Competencies and Task Lists

<http://www.fbla-pbl.org/docs/ct/FBLA/BUSINESSCALCULATIONS.pdf>

### Web Site Resources

- How to Calculate Depreciation  
<http://www.assetaide.com/depreciation/calculation.html>
- Markup  
[http://www.321know.com/g84\\_max1.htm](http://www.321know.com/g84_max1.htm)
- Meters and Liters: Converting to the Metric System of Measurements  
[http://www.learner.org/interactives/dailymath/meters\\_liters.html](http://www.learner.org/interactives/dailymath/meters_liters.html)
- The Metrics International System of Units  
<http://www.wsdot.wa.gov/reference/metrics/factors.htm>

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## BUSINESS CALCULATIONS SAMPLE QUESTIONS

1. A store marks up its merchandise 45 percent of the selling price. If the markup amount on a camera is \$265.75, what is the selling price of the camera?
  - a. \$611.11
  - b. \$119.59
  - c. \$590.56
  - d. \$590.65
2. What is the reduction if a \$16.85 item is reduced by 25 percent?
  - a. \$4.22
  - b. \$4.21
  - c. \$12.21
  - d. \$12.64
3. You have a \$1,026.10 invoice dated June 5 with terms of 2/10, net 30. Assuming that you paid the invoice on June 14, what is the net amount you should pay?
  - a. \$1,005.57
  - b. \$1,005.58
  - c. \$1,050.59
  - d. \$1,026.10
4. Cindy is a sales representative for a publishing company. She earns \$500 per week plus a 3 percent commission. Last week her total sales were \$75,000. What were her weekly earnings?
  - a. \$2,250
  - b. \$2,350
  - c. \$2,450
  - d. \$2,750

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5. Caleb's goal for October is to earn a commission of \$8,000. If he receives a commission of 8 percent, what must his total sales be for October in order to achieve his goal?
    - a. \$64,000
    - b. \$800,000
    - c. \$100,000
    - d. \$80,000
  
  6. Miranda earned \$472.50 in interest on her savings account last year. If the rate of interest is 4.5 percent, how much did Miranda have on deposit at the beginning of last year?
    - a. \$11,812.50
    - b. \$10,500.00
    - c. \$11,117.65
    - d. \$21,262.50
  
  7. What is the total simple interest for a \$150.66 loan for two years at a 5 percent interest rate?
    - a. \$15.07
    - b. \$7.53
    - c. \$7.52
    - d. \$15.06
  
  8. What is the rate of interest if the interest on \$1,216.24 for 96 days is \$19.46? Use 360 days in a year.
    - a. 5 percent
    - b. 9 percent
    - c. 8 percent
    - d. 6 percent
  
  9. A company's expense to revenue ratio is 4:7. What is this month's revenue if expenses were \$8,000?
    - a. \$15,000
    - b. \$28,000
    - c. \$32,000
    - d. \$14,000
  
  10. From a total yearly budget of \$18,000,000, the city of Metropolis spends \$3,000,000 on education. What is the ratio of the amount spent on education to the amount not spent on education?
    - a. 1 to 5
    - b. 2 to 5
    - c. 1 to 4
    - d. 2 to 3
  
  11. What will be the finance charge on a credit card statement if the unpaid balance was \$829.25? The credit card company has an annual finance rate of 15.5 percent.
    - a. \$10.71
    - b. \$9.60
    - c. \$10.40
    - d. \$107.11
  
  12. Ricardo borrowed \$9,000 to buy a car. To date he has paid \$1,800 of his loan. What percent of the loan is paid off?
    - a. 20 percent
    - b. 25 percent
    - c. 10 percent
    - d. 15 percent

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13. What is the annual depreciation for a car that cost \$7,900 and has a trade-in value of \$1,950 after 4 1/2 years?
- \$1,755.56
  - \$1,322.00
  - \$1,300.00
  - \$1,487.50
14. Find the market value of a \$1,000 bond listed at 93 5/8.
- \$935.50
  - \$936.60
  - \$906.25
  - \$936.25
15. Wages payable for ABC Company in 2010 were \$11,185. In 2009, wages payable were \$5,872. What is the percent increase in wages payable from 2005 to 2006?
- 90.5 percent
  - 47.5 percent
  - 62.5 percent
  - 74.5 percent
16. Latoya's bank balance was \$1,564.69 and her checkbook balance was \$1,604.75. She reviewed her banking records and discovered three outstanding checks: \$29.63, \$95.56, and \$48.75. She also discovered that a deposit of \$425 had been entered twice in her check register. A deposit of \$215 had been credited on the bank statement but **not** recorded in the check register. The bank assessed a \$4 service charge. What is her reconciled balance?
- \$1,390.75
  - \$1,994.75
  - \$1,694.75
  - \$1,564.69
17. At the beginning of the month, Ida's checkbook balance was \$321.75, but she had forgotten to record in her check register a deposit for \$225. During the month, she wrote checks for \$132.50, \$68.75, and \$93.32. What should be the balance in her check register?
- \$27.28
  - \$252.18
  - \$354.50
  - \$252.68
18. A homeowner insurance policy was cancelled at the end of 125 days. If the yearly premium was \$361, what amount was refunded to the customer? Use 365 days in a year.
- \$223.63
  - \$123.63
  - \$237.37
  - \$235.65
19. Mr. Bachner wants to insure his home, which is valued at \$356,000. The annual rate is \$.56 per \$100, and the term rate for five years is 4.4 times the annual rate. How much will Mr. Bachner save by insuring his home under the five-year term instead of paying the annual rate for the five years?
- \$1,196.16
  - \$2,096
  - \$1,990
  - \$1,993.60

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20. The net price of goods from Paul's Fresh Produce to the local Frank's Food Market is \$3,576.90. The terms are 3/10, n/30. The date of the invoice is May 1. The date paid is May 6. What is the cash price?
- \$3,469.59
  - \$3,150.30
  - \$3,218.22
  - \$2,750.30
21. Lauren received a single-payment loan of \$5,000 for 90 days at 9 percent ordinary interest. What is the amount of ordinary interest owed?
- \$112.50
  - \$150.00
  - \$132.50
  - \$450.00
22. Odessa Hobbs purchased 2,000 shares of XZZ stock for \$12,780. She sold the stock for \$7 per share and paid a sales commission of \$26. What is the profit or loss from the sale?
- \$1,194 profit
  - \$1,328 loss
  - \$1,278 loss
  - \$206 profit
23. Lucas Hardware has recently purchased three cash registers. Each cash register cost \$1,800 and has an estimated life of 5 years. The trade-in value of each cash register is expected to be \$100 at the end of five years. Using the straight-line method, find the annual depreciation for all three cash registers.
- \$1,200
  - \$1,400
  - \$1,375
  - \$1,020
24. The cash price of a music system is \$2,859, and the installment price is \$3,115.35. How much is the finance charge?
- \$21.36
  - \$115.35
  - \$10.68
  - \$256.35
25. Jose's Market is assessed for \$125,000. The current tax rate is \$92.45 per \$1,000 of assessed valuation. Calculate the tax due.
- \$115.56
  - \$110.09
  - \$11,556.25
  - \$1155.63
26. If four video cassettes cost \$75, how many did Kim buy if she received \$31.25 in change from her \$500 check?
- 25
  - 20
  - 32
  - 40

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27. Nancy White, an account representative for Kreative Kids, is paid a 4 percent commission rate and a salary of \$200 each week. If her sales total \$25,510 this week, find her gross earnings for the week.
- a. \$476.80
  - b. \$417.00
  - c. \$1,220.40
  - d. \$298.00
28. Auburn Tire offers a 74-pound truck tire for \$182 plus tax. If sales tax is 7.5 percent and excise tax is \$4.50 plus 30 cents per pound over 70 pounds, find the total cost including tax.
- a. \$222.35
  - b. \$195.65
  - c. \$208.70
  - d. \$201.35
29. Maegan has a tax liability is \$25,112, tax credits of \$7,650, other taxes of \$2,211, and taxes paid of \$21,200. How much will she receive as a refund or owe?
- a. \$13,773.00 owed
  - b. \$392.00 refund
  - c. \$1,527.00 refund
  - d. \$3,912.00 owed
30. Fitness Center received three new weight machines on May 15 and the invoice in the amount of \$1,215 for these good arrived on May 1 with discount terms of 2/15, n/30, ROG. How much must be paid if the invoice is paid on May 28?
- a. \$1,032.75
  - b. \$1,115.00
  - c. \$1,190.70
  - d. \$1,215.99