
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
- Meters and Liters: Converting to the Metric System of Measurements
http://www.learner.org/interactives/dailymath/meters_liters.html
- The Metrics International System of Units
<http://www.wsdot.wa.gov/reference/metrics/factors.htm>

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?
- a. \$1,755.56
 - b. \$1,322.00
 - c. \$1,300.00
 - d. \$1,487.50
14. Find the market value of a \$1,000 bond listed at 93 5/8.
- a. \$935.50
 - b. \$936.60
 - c. \$906.25
 - d. \$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?
- a. 90.5 percent
 - b. 47.5 percent
 - c. 62.5 percent
 - d. 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?
- a. \$1,390.75
 - b. \$1,994.75
 - c. \$1,694.75
 - d. \$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?
- a. \$27.28
 - b. \$252.18
 - c. \$354.50
 - d. \$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.
- a. \$223.63
 - b. \$123.63
 - c. \$237.37
 - d. \$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?
- a. \$1,196.16
 - b. \$2,096
 - c. \$1,990
 - d. \$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?
- a. \$3,469.59
 - b. \$3,150.30
 - c. \$3,218.22
 - d. \$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?
- a. \$112.50
 - b. \$150.00
 - c. \$132.50
 - d. \$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?
- a. \$1,194 profit
 - b. \$1,328 loss
 - c. \$1,278 loss
 - d. \$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.
- a. \$1,200
 - b. \$1,400
 - c. \$1,375
 - d. \$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?
- a. \$21.36
 - b. \$115.35
 - c. \$10.68
 - d. \$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.
- a. \$115.56
 - b. \$110.09
 - c. \$11,556.25
 - d. \$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?
- a. 25
 - b. 20
 - c. 32
 - d. 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