2002 Business Calculations								Page
1. The Mays kept accurate records of their expenditures. At			a. \$32.50		b. \$61.75	c. \$33.25	d. \$156.75	
the end of October, they prepared an expense summary.								
During October they spent \$6								
budgeted \$95. How much mo	ore did they l	oudget for heating						
fuel for the month than they s								
Below are Bill and Sharon Ol	son's expend		hs.					
APRIL		MAY		JUNE				
Mortgage	\$502.17	Mortgage	\$502.17	Mortgage	\$502.17			
Electricity	41.52	Dentist	50.00	Electricity	47.15			
Fuel	100.70	Telephone	27.63	Lawn edger	142.39			
Auto repair	163.83	Allowance	25.00	Telephone	31.30			
Mower repair	42.00	Fuel	38.15	Restaurant	40.00			
Water/Sewer	21.78	Theater	40.00	Gasoline	39.55			
Cleaners	23.90	Groceries	122.80	Groceries	136.90			
Gasoline	53.60	Newspaper	21.20	Credit cards	70.20			
Bill's expenses	120.00	Gasoline	45.80	Fuel	39.34			
Groceries	93.70	Bill's expenses	100.00	Clothing	263.86			
Gift	20.60	Credit cards	52.80	Bill's expens	es 200.00			
Charitable donation	35.00	Allowance	25.00	Telephone	26.32			
2. What is their average mont			a. \$1,245.12		b. \$1,269.51	c. \$1,537.86	d. \$3,808.53	
Armstrong Associates hired J	udith Apollo	as its new public rela	ations manager	at an annual sal	ary of \$29,950. The hiring	g costs included the f	following:	
Advertising	:	\$467.28						
Interviews:		580.14						
	ills Agency		rst year's salary					
3. What was the cost of hiring			a. \$1,047.42		b. \$4,492.50	c. \$5,539.92	d. \$37,437.00	
Ernie Cortez is a consultant for	or the Mayflo	ower Marketing Research	arch, Inc. Last	month his trave	el expenses included the fo	llowing:		
	mobile:		525 miles					
			a. 3.7%		b. 4.3%	c. 5%	d. 10%	
Presidential Motorcycle Comp	pany. Ned f	ound 5 motorcycles						
with defective rims during his								
inspected 135 motorcycles. T	he process is	s in control if 4% or						
less of the merchandise is defe								
defective?								
inspected 135 motorcycles. T less of the merchandise is defe	vel expenses y control ins pany. Ned fo s 11 a.m. insp The process in	pector for the ound 5 motorcycles pection. He s in control if 4% or	a. \$736.65		b. \$594.90 b. 4.3%	c. \$141.75 c. 5%	d. \$1,119.90 d. 10%	

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6. Johnston Corporation manufactures aluminum shelves.	a. \$2.08	b. \$2.46	c. \$0.38	d. \$191.52	
The machine operator stamps 78 shelves per hour from each					
strip of aluminum. Each strip costs \$162. The direct labor					
charge is \$29.52 per hour. What is the prime cost of					
manufacturing a shelf?					
7. Nixon Electronics manufactures earphones for stereo	a. 20,000	b. 9,123	c. 40,031	d. 71,331	
equipment. The variable costs per unit are \$5.70. Nixon					
Electronics sells each unit for \$12.99. The fixed costs are					
\$520,000. How many units must Nixon sell to break even?					
8. Shanda Jackson is a quality control inspector for Hibatchi	a. 15%	b. 67%	c. 6.7%	d. 1.5%	
VCRs. The process is in control if 6% or less of each sample					
is defective. Shanda checked 60 VCRs and found 4 defective.					
What percent is defective?					
9. Coleperson Gear manufactures camping lanterns. It plans	a. 249,196	b. 62,249	c. 82,976	d. 73,426	
to manufacture 385,000 lanterns to be sold at \$24.90 each.	,	,			
The fixed costs are estimated to be \$1,550,000. Variable					
costs are \$18.68 per unit. How many lanterns must be sold					
for Coleperson to break even?					
10. Janice Bergen is a machine operator at Fox	a. \$0.93	b. \$0.99	c. \$18.60	d. \$19.78	
Manufacturing. She cuts and groups 20 strands of wire from					
a roll of steel fibers. Each roll of steel costs \$1.18. Janice					
produces 1 strand every 3 minutes. The direct labor cost is					
\$18.60 per hour. What is the prime cost of one strand of					
wire?					
11. Harrison Household Products, Inc. produces automatic ice	a. 62,273	b. 24,796	c. 121,778	d. 41,203	
crushers. Harrison's fixed costs are \$822,000. Variable costs	,	,	,		
per ice crusher are \$13.20. If Harrison sells each unit for					
\$19.95, how many units must be sold for it to break even?					
12. Hamilton Warehouse purchases its Deluxe compact disc	a. \$209.93	b. \$69.98	c. \$11.20	d. \$268.70	
	a. \$23.95	b. \$8.14	c. \$32.09	d. \$15.81	
	,	1			
player from a wholesaler. The CD player's list price is \$279.90. Hamilton receives a 25% trade discount. What is the net price Hamilton pays for the player? 13. Shea's Mattress Warehouse purchases feather pillows from Banner Wholesale Company. The list price of each pillow is \$23.95. Banner Wholesale gives Shea's a 34% trade discount. What is the net price Shea's pays for the pillows?	a. \$23.95	b. \$8.14	c. \$32.09		

McKinley Electronics received the following invoice from Roosevelt Stereo Supply. Roosevelt gives McKinley a 40% discount.

ROOSEVELT STEREO SUPPLY

22 South Street Elgin, Illinois

Quantity	Description	Model	List Price	
1 AM/FM Stereo System 10 AM/FM TV/Radio 7 CD Changer 2 AM/FM Walkman Unit		#2311	\$469.99	
		#5731	779.50	
		#1-232	329.79	
		#13-216	35.00	

14. What is the total net price of these items?	a. 10,643.52	b. 4,257.41	c. 6,386.11	d. 9,997.81
15. Aluminum Products, Inc. manufactures storm doors. The	a. 28%	b. 39%	c. 5%	d. 10%
list price of its aluminum door with acrylic panels is \$159.95.				
The net price to the retailer is \$115.40. What is the trade-				
discount rate?				
16. Fabric Bonanza buys bolts of material for \$252.69 each.	a. \$45.06	b. \$550.44	c. \$297.75	d. \$252.69
It sells the bolts for \$297.75 each to local department stores.				
What is the markup on each bolt of material?				
17. The Corner Drug Store buys throat lozenges for \$1.14 per	a. 74.6%	b. 42.7%	c. 15.5%	d. 10%
box. It sells them for \$1.99 per box. What is the markup rate				
based on the selling price?				
18. Shawn Canola is a buyer for Original Fashions. Shawn	a. \$49.08	b. \$19.94	c. \$29.14	d. \$79.74
purchased several sport coats for \$50.60 each. His store sold				
them for \$99.68 each. Operating expenses are estimated to be				
20% of the selling price. What is the net profit per coat?				
19. Parties-R-Us purchases rolls of paper streamers from	a. \$8.68	b. \$3.63	c. \$12.00	d. \$5.05
Paperworks Wholesalers for \$7.81 per 6-roll pack. It sells the				
packs of streamers for \$16.49. Parties-R-Us estimates its				
overhead expenses for each pack of streamers to be 22% of				
the selling price. What is the net profit on each pack?				
20. Three-Part Harmony Music Store purchases popular	a. \$16.00	b. \$3.90	c. \$10.62	d. \$22.72
compact discs in bulk for \$6.72 each. The markup on the				
CDs is 58% of the selling price. What is the selling price?				
21. The Country Grocery Store purchases air fresheners for	a. \$1.42	b. \$2.06	c. \$3.00	d. \$2.58
\$1.42. The markup on the air freshener is 45% of the selling				
price. What is the selling price?				
22. The Amazement Park, a summer amusement park, sells	a. 86%	b. 633%	c. 50%	d. 63%
molded plastic containers of fruit juices to thirsty guests for				
\$1.10 each. The park purchases the drinks for \$0.15 each.				
What is the markup rate based on cost?				

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23. The Loudonville Village Council conducted an opinion survey on the need for a swimming pool facility in the community. Of the 961 residents surveyed, 287 gave a "negative" response. What is the rate of negative responses?	a. 70.1%	b. 3%	c. 29.9%	d. 7%
24. Quill Market Research, Inc. has been asked to research the market for a biodegradable trash bag. A sample of 1,200 households was asked to try the trash bags. Of the households sampled, 743 said they would buy the trash bags. Quill estimates that there are 120 million households in the target market for the trash bags. Quill estimates that each household would buy 9 boxes of the trash bags per year. What is the sales potential for the new trash bags for one year?	a. 668.7 million	b. 120 million	c. 108 million	d. 62 million
25. Sawyer Wood Products sold 607,964 bookshelves over the year. During that same year 3,892,000 bookshelves were sold in the entire market. What was Sawyer's market share for the year?	a. 6.4%	b. 84.3%	c. 15.6%	d. 50%
26. Keifer's Florist has 42% of the market in Ashland County. The Floral sales in Ashland County for next year are estimated to be \$802,217. What is the projected sales figure for Keifer's in Ashland County for next year?	a. \$33,693,114.00	b. \$336,931.14	c. \$33,693.11	d. \$3,693.14
27. Larson's Quick Print has a 27% share of the photo- processing market. The estimated market for next year is \$1,389,900. What is Larson's sales projection for next year?	a. 37,527,300.00	b. 27,300.00	c. 37,527.30	d. 375,273.00
28. Romberg Bakeries contracted with Connolly News for 94 inches of advertising per week. What is the cost of a 54-inch advertisement? CONNOLLY NEWS (Advertising Rates per inch) 63 inches \$39.54 94 inches \$35.36 126 inches \$31.31	a. \$1,909.44	b. \$20.31	c. \$39.54	d. 2,135.16
29. The Local Sales Car Dealership plans to advertise on network television. The rate per 30-second commercial is \$2,400. The 10-second commercial costs one half the cost of the 30-second commercial, and the 60-second commercial costs twice the cost of the 30-second commercial. Local Sales contracted for eight 30-second commercials, thirteen 10-second commercials, and six 60-second commercials. How much will Local Sales pay for these commercials?	a. \$63,600	b. \$64,800	c. \$6,360	d. \$6,480

30. Cathedral Paint General Store delivers bundles of	a. 408 cubic feet	b. 48 cubic feet	c. 360 cubic feet	d. 1,080 cubic feet
firewood to customers in crates measuring 3 feet long, 2.5				
wide, and 3 feet high. How many cubic feet of storage space				
does Cathedral Paint General Store need to store 48 crates of				
firewood bundles?				
31. Lazy Afternoon armchairs are packaged in cartons	a. 7,830 cubic feet	b. 35,235 cubic feet	c. 9,135 cubic feet	d. 870 cubic feet
measuring 3 feet long, 3 feet wide, and 4.5 feet high. How				
much storage space is needed for storing 870 armchairs?				
32. Big Band Drug Store had 185 boxes of tissues on hand at	a. 281	b. 581	c. 89	d. 50
the beginning of the week. During the week they received				
150 boxes of tissues from the wholesaler and sold 246 boxes.				
How many boxes of tissues were on hand at the end of the				
week?				
Wilson Sporting Goods needs to find the value of its inventory	of basketballs as of April 30.			

Date		Receipts	Total Cost
April 1	Opening balance	48	\$957.60
April 11		12	222.00
April 22		18	342.00
April 30		6	115.50

April 30		6	115.50	i	
33. What is this inventory value if Wilson's has 30	a. \$1,637.10	b. \$84.00	c. \$1	9.49	d. \$584.68
pasketballs on hand April 30?					
4. Spinks' Automotive Supply Co. estimates the cost of	a. \$125,450	b. \$35,126	c. \$3	,512,600	d. \$12,545
arrying its inventory to be 28% of the value of the					
merchandise. Approximately how much will it cost Spinks'					
Automotive to carry an inventory of \$125,450 for a year?					
5. Horton Baloney Company carries an annual inventory of	a. \$103,417.71	b. \$1,034,17	77.10 c. \$3	13,387.00	d. \$31,338.70
\$313,387. The cost of carrying the inventory is					
approximately 33% of its value. What is the approximate cost					
of carrying this inventory for one year?					
36. The Candy Company is shipping 860 pounds of holiday	a. \$713.80	b. \$76,733.5	60 c. \$7	72.58	d. \$65,585.40
andy by air freight. Pickup is \$6.25 per 100 pounds or					
fractional part. Delivery is \$6.85 per 100 pounds or fractional					
part. The air freight rate is \$72.50 per 100 pounds charged on					
the actual number of pounds shipped. There is a 5% tax on					
the air freight. What is the total shipping cost?					

Electronics, Inc. hired Curtice Trucking to ship 456 pounds of electronic equipment. The distance was 180 miles.

CURTICE TRUCKING (Basic Rates per 100 pounds)

Weight Group		Distance (In	miles)	
(in pounds)	1-100	101-200	201-300	
0 - 500	\$25	\$30	\$35	
501 - 1000	\$20	\$25	\$30	
ng cost?		a. \$15,000.00	b. \$136.80	c. \$15
Inc. rents a portion of	Pier End	a. \$189,585.00	b. \$2,987.40	c. \$24

37. What was the shipping cost?	a. \$15,000.00	b. \$136.80	c. \$15,960.00	d. \$159.60
38. C. Davis Consulting, Inc. rents a portion of Pier End	a. \$189,585.00	b. \$2,987.40	c. \$248.95	d. \$15,798.75
Business Facility, a complex owned by Schwartz &				
Associates. The floor space of C. Davis Consulting's part of				
the building measures 150 feet by 110 feet. Schwartz &				
Associates charges an annual rate of \$11.49 per square foot.				
What is the monthly rental charge?				
D: D	W D Tl	1 1. 1	11. C4. 1.4. OCC. D	11.11

Pizza Panache, a fast food chain, is opening a regional office in West Roscoe. The company decided to open the office in the Stapleton Office Building and to rent the space advertised.

STAPLETON OFFICE BUILDING 1 Stella Park OFFICE SPACE

1200 sq. ft., carpeted, gas-heat, recessed lgt., and air conditioned. \$580 per month 493-4103

39. How much does Pizza Panache pay per square foot per year for this office?	a. \$0.48	b. \$6,960.00	c. \$48.00	d. \$5.80
40. Wolfe Used cars rents a lot from Habrech Realty. The rent is \$4.75 per square foot per year plus 4.5% of Wolfe's gross sales. The lot's area is 8,850 square feet. If Wolfe has a \$264,000 gross income the first year, what monthly rent will it pay?	a. \$53,917.50	b. \$4,493.13	c. \$42,037.50	d. \$11,880.00
41. Baker Catering Service is moving from its present location to another building. It will need 9 people for 5 hours to complete the move. Each person will be paid \$10.45 per hour. What will be the total charge?	a. \$45.00	b. \$94.05	c. \$2,025.00	d. \$470.25

42. Madsen, Biddle & Associates is renting a deluxe fax	a. \$3,969.99	b. \$3,698.00	c. \$314.33	d. \$330.83
machine. The monthly rental charge is 81/2% of the list price.				
The list price is \$3,698. There is a 51/4% sales tax per month.				
What is the total rental charge that Madsen, Biddle &				
Associates pays for 12 months?				
II. I.				

Home Interiors, Inc., is renting some power tools to refinish a wooden floor. Machines Rental Company charges 93/4% of the list price of the equipment per month. The list price of the equipment is

ITEM LIST PRICE				
Power Sander \$2,490.9	5			
Varnisher 1,396.50				
Power Waxer 3,675.00				
43. In addition to the rental charge, there is a 6% tax. What is	a. \$737.34	b. \$7,562.45	c. \$6,636.05	d. \$7,034.22
the total cost of renting the equipment for 9 months?				
44. Clarke Suppliers has one incoming telephone line. The	a. \$169.90	b. \$103.39	c. \$164.15	d. \$5.75
basic monthly charge for this line is \$92.75. The charge				
includes 200 local outgoing calls. The cost of each additional				
outgoing call is \$.085. Clarke made 284 outgoing calls last				
month. A 3.5% federal excise tax is added to the bill. What				
is the total cost of Clarke's telephone service for the month?				
45. Erie Metal Stamping Company hired an industrial	a. \$2,384.25	b. \$72.25	c. \$2,393.16	d. \$23.84
engineering firm to conduct work sampling on the average				
worker's day. Erie was charged \$72.25 per hour for 33 hours				
of work. How much did the sampling cost Erie Metal				
Stamping?				
46. Ace Moving Company paid total salaries of \$32,416.98	a. \$26,498.19	b. \$32,416.98	c. \$38,335.77	d. \$2,208.18
for the week. There were total deductions of \$5,918.79.				
What was the total net pay?				

Use the following information to answer questions 47 and 48.

Hefner Frame Shop had the following expenses last month:

Frame Inventory \$14,547.40

Payroll 7,473.30 Shop Rental 825.00

Supplies 540.50

47. What are the total expenses?	a. \$8,838.80	b. \$14,547.40	c. \$23,386.20	d. \$23,385.00
48. Frame Inventory represents what percent of the total?	a. 37.8%	b. 62.2%	c. 50%	d. 45%

Use the following information to answer questions 49 and 50.

Newbury Market purchased new grocery carts. The total cost was \$14,925. The estimated life of the equipment is 8 years. The total resale value of the carts after 8 years is estimated to be \$1,950.

is estimated to be \$1,750.					
	49. What is the annual depreciation?	a. \$1,865.63	b. \$243.75	c. \$1,621.88	d. \$2,109.38
		•			

2002 Business Calculations				P
50. What is the book value after 4 years?	a. \$8,437.50	b. \$6,487.50	c. \$21,412.52	d. \$7,800.00
51. Max's Christmas Tree Lot had an inventory of Christmas	a. \$10,930.00	b. \$6,555.00	c. \$3,862.00	d. \$10,417.00
trees worth \$4,375 at the beginning of December. During the				
month Max's received a shipment of 230 additional trees at				
\$28.50 each. On December 31, Max's lot had an inventory of				
\$513 remaining. What was the cost of goods sold for				
December?				
The income statement for Duck's Coin Collecting Shop shows	the following figures for	last quarter.		
Income:				
	\$156,088			
Less: Sales returns and allowances1133	_			
	\$154,955			
Cost of goods sold	<u>74,781</u>			
<u> </u>	\$ 80,174			
52. Find the gross profit as a percent of sales.	a. 51.7%	b. 74.8%	c. 51.4%	d. 50.0%
Use the following information to answer questions 53 throu				
Shrimplin's Clothing Store had net sales of \$572,247 last year.				
53. What is the amount of change?	a. \$75,841.00	b. \$1,220,335.00	c. \$75,616.00	d. \$76,641.00
54. What is the percent of change? Kelly Company issued 33,000 shares of stock at \$93 per share.	a. 11.7%	b. 88.3%	c. 13.3%	d. 50%
Commissions \$153,450 Legal fees \$14,500 Legal fee Advertising \$18,500 Accounting				
55. Find the net proceeds after these selling expenses are deducted.	a. \$298,700	b. \$2,770,300	c. \$2,917,010	d. \$3,069
Romulus, Inc. sold 12,350 bonds at \$64 per bond.			L	1
. 1				
Size of Issue Underwriting	Other			
(in millions) Commission	Expenses			
Under \$.5 7.7%	8.2%			
\$.5 - \$.9 7.5%	3.7%			
\$1.0 - \$1.9 7.3%	3.6%			
\$2.0 - \$4.9 4.5%	1.4%			
56. What net proceeds did Romulus receive?	a. \$790,400.00	b. \$88,524.80	c. \$1,264,900.00	d. \$701,875.20
57. Twenty years ago, an average small-town home could be	1 2		. , ,	
	a. 105%	b. 50%	c. 175%	d. 64%
	a. 105%	b. 50%	c. 175%	d. 64%
purchased for \$20,000. Today the same house might be bought for \$55,000. What is the inflation rate for houses over	a. 105%	b. 50%	c. 175%	d. 64%

a. \$60	b. \$35	c. \$350	d. \$75
a. \$303.81	b. \$30.38	c. \$50.00	d. \$29.99

Joni Glenn is a computer operator, level 2, for Voyager Transportation Network. She will receive a cost-of-living increase of 5.75%.

<u>Level</u>	Computer Operator				
1	\$15,360				
2	\$16,800				
3	\$18,240				
	•				
60. What will her new salary be?	a. \$18,240	b. \$16,250	c. \$15,360	d. \$17,766	