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ACCTG 211 – Exam 3 – Practice Exam Solutions

1. B

$\text{EPS} = \text{Net income} / \text{Average shares outstanding}$

$\text{EPS} = \$38,000 / 50,000$

$\text{EPS} = \$0.76$

2. D

$\text{P/E} = \text{Market price} / \text{EPS}$

$\text{P/E} = \$15 / \0.76

$\text{P/E} = 19.74$

3. C

$\text{Dividend per share} = \text{Total dividend paid} / \text{Number of shares outstanding}$

$\text{Dividend per share} = \$25,000 / 50,000 = \$0.50 \text{ per share}$

$\text{Dividend yield} = \text{Dividend per share} / \text{Market price per share}$

$\text{Dividend yield} = \$0.50 / \$15$

$\text{Dividend yield} = 0.033 = 3.3\%$

4. **B** – Profit margin will decrease, earnings per share will decrease, gross margin will decrease

Net sales – Remain the same

COGS – Increase

Gross margin – Decreases

Operating expenses – Remain the same

Net income – Decreases

Profit margin = Net income / Net sales – The profit margin will decrease because net income decreases while net sales remain the same.

Earnings per share = (Net income – Preferred dividends) / Avg number of common shares outstanding – Earnings per share will decrease because net income decreases while preferred dividends and average number of common shares outstanding remain the same.

Gross margin ratio = Gross margin / Net sales – Gross margin is sales minus cost of goods sold. The cost of goods sold expense increasing by 10% will cause the gross margin to decrease by 10%. Net sales will stay the same so the gross margin ratio will decrease.

5. **D** – Return on assets remains the same, current ratio remains the same, and debit to equity remains the same.

Cash will go up by the same amount accounts receivable goes down so there will be no effect on either current or total assets.

Assets	=	Liabilities	+	Shareholders' equity	
				Contributed capital	+ Retained earnings
+cash					
(accounts receivable)					

Return on assets = Net income / Average total assets – Net income is not affected because neither revenues nor expenses were affected. Average total assets remain the same because we are increasing one assets and decreasing another by the same amount. Thus, return on assets remains the same.

Current ratio = Current assets / Current liabilities – Current assets remain the same. Current liabilities are not affected by the transaction. Thus, the current ratio remains the same.

Debt to equity = Total liabilities / Total stockholders' equity – Neither liabilities nor stockholders' equity were affected by the transaction. Thus, debt to equity ratio remains the same.

6. **B** – Current ratio increases, gross margin ratio decreases, and earnings per share increases.

When we sell merchandise, we must record both the sales revenue and the cost of goods sold expense.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
\$35 accounts receivable						\$35 sales revenue
(\$10) inventory						(\$10) cost of goods sold expense

Our Accounts Receivable will increase by \$35 and inventory will decrease by \$10. This will increase Current Assets by \$25 ($\$35 - \$10 = \25) because both accounts receivable and inventory are current assets.

Liabilities are not affected by this transaction.

We have sales revenue of \$35 and a COGS expense of \$10. This transaction will cause both gross margin and net income to increase by \$25 ($\$35 - \$10 = \25).

Current ratio = Current assets / Current liabilities – This transaction causes current assets to increase by \$25 while current liabilities remain the same. Thus, we will see the current ratio increase.

Gross margin ratio = Gross margin / Net sales – This transaction will cause the dollar value of our gross margin to increase by \$25; however, it will cause our gross margin ratio to decrease. We can only determine the transaction's impact on the gross margin ratio if we know the gross margin ratio prior to the transaction. For this problem, we are told that the gross margin ratio was 80% prior to the transaction. The gross margin ratio for this transaction is 71% ($\$25 / \$35 = 0.714 = 71\%$). Since the gross margin ratio for this transaction is less than the gross margin ratio prior to the transaction, the gross margin ratio will decrease. If the gross margin ratio for the transaction had been greater than the gross margin ratio prior to the transaction, then the gross margin ratio would have increased.

EPS = (Net income – Preferred dividends) / Avg number of common share outstanding – This transaction will cause net income to increase. Preferred dividends and average number of common shares outstanding are not affected by the transaction. Thus EPS will increase.

7. **B** – Profit margin will decrease, debt to equity will increase, and gross margin will decrease

When we change from FIFO to LIFO in a period of rising prices, we will incur a higher cost of goods sold, because the most recently purchased goods will be the first ones expensed. Therefore, our net income will decrease since our expenses are increasing. Net Sales, however, are not affected by the change.

Profit margin = Net income / Net sales – Net income decreases due to the higher COGS. Net sales remains the same. Thus, profit margin will decrease.

Debt to equity = Total liabilities / Total stockholders' equity – Liabilities are not affected by switching from FIFO to LIFO. The increased COGS expense will reduce total stockholders' equity because expenses reduce the stockholders' equity section of the balance sheet through the retained earnings account. Thus, debt to equity will increase because the numerator is staying the same while the denominator is decreasing.

Gross margin ratio = Gross margin / Net sales – Switching from FIFO to LIFO when prices are increasing will increase our COGS expense. The increased COGS expenses will decrease our gross margin. Since net sales remain the same, our gross margin ratio will decrease.

8. **A** – Operating activities section
9. **C** – Financing activities section
10. **C** – Negative \$1650

\$1,020 Net Income
+ \$100 Depreciation Exp (Non Cash Exp)

–Change in Current Assets
– \$1,850 Δ in A/R
– \$200 Δ Inventory
--\$50 Δ in Prepaid Insurance

+Change in Current Liabilities
+ -\$800 Δ in Accounts Payable (\$800)
+ \$30 Δ Interest Payable

= -\$1,650 NET CASH OPERATING OUTFLOW

The Long-Term Note Payable had no effect on this problem, since operating cash flows are only affected by a change in current liabilities

11. **B** – Provided net cash of \$10,000

– **\$100,000 Net Income**
+ **\$30,000 Depreciation Exp (Non Cash Exp)**

– **Change in Current Assets**
– **-\$60,000 Δ in A/R**
– **\$90,000 Δ Inventory**

+Change in Current Liabilities
+ \$110,000 Δ in Accounts Payable (\$800)

= \$10,000 NET CASH OPERATING INFLOW

12. **D** – Cash flows from investing activities are related to cash received from buying or selling long-term assets. The three investing activities are 1) Purchasing the new machine, 2) Selling the machine for \$70,000, note that the fact it was sold for a loss does not matter because we only care about the \$70,000 cash inflow, and 3) buying a new computer.

Net Cash flow from investing activities = -\$20,000 + \$70,000 - \$5,000 = \$45,000

13. **B** – Cash flows from financing activities are related to increase or decrease of long term liabilities and shareholder's equity accounts because they are the accounts we use to finance a company. However, note that payment of interest on a bond is considered an operating activity because interest expense is found on the income statement so it is part of operations.

Net cash flow from financing activities = \$100,000 + \$20,000 - \$1,000 = \$119,000

14. **D** – All of the above

15. **A** – Current assets and current liabilities

16. **C** - The receipt of the money from the loan and issuing stock are inflows of cash. Paying the dividends is an outflow of cash

Net cash flow from financing activities = \$10,000 + \$15,000 - \$4,000 = \$21,000

17. **A** – \$70,000

Cash received from customers = Sales – Change in accounts receivable
Cash received from customers = \$100,000 – \$30,000 = \$70,000

18. C – Since our liabilities went down this year we know that we paid all of our operating expenses for the year in cash. Additionally, we paid off \$30,000 in accrued liabilities so the total amount of cash we spent was \$230,000.

19. B – Financing activities

20. **C** – Debt to equity will decrease, gross margin ratio remains the same, and current ratio will increase

As we can see below, this transaction will cause cash and accounts payable to decrease. Cash is a current asset. Accounts payable is a current liability.

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash)		(accounts payable)		

Debt to equity = Total liabilities / Total stockholders' equity – This ratio will decrease because total liabilities decrease while total stockholders' equity remains the same.

Gross margin ratio = Gross margin / Net sales – This transaction does not impact gross margin or net sales so the gross margin ratio remains the same.

Current ratio = Current assets / Current liabilities – Current assets will decrease, which would cause the ratio to decrease. Current liabilities will decrease, which would cause the ratio to increase. Since the movement in the numerator and denominator conflict, we can't answer this without additional information. We need to know the current ratio prior to the transaction to be able to determine the impact on current ratio. We were told the current ratio prior to the transaction was 2:1. This means that current assets were twice as much as current liabilities.

For this scenario with current ratio where the movement in the numerator and denominator conflict, it is often easiest to make up numbers to determine the impact on current ratio. We can use any numbers we want for current assets and current liabilities prior to the transaction as long as current assets are double current liabilities. Let's use CA = \$200 and CL = \$100.

Current ratio before transaction = \$200 / \$100 = 2

We can also use any number we want for the amount we settled for accounts payable. Let's use a value of \$50. So we will reduce current assets and current liabilities by \$50.

Current ratio after transaction = \$150 / \$50 = 3

Since the current ratio was greater than one prior to the transaction, the transaction will cause the current ratio to increase. Make sure to note that we had to know the current ratio prior to the transaction to be able to solve this problem. The answer was increase because the current ratio was greater than one prior to the transaction. The answer would have been different if the current ratio had been equal to one or less than one.

21. **B** – Return on equity decreases, debt to equity decreases, and profit margin remains the same

We see below that this transaction will increase the value of “land” on our balance sheet, which is an asset. It will also increase the value of both common stock and APIC—both increase contributed capital. Contributed capital is part of shareholders’ equity so total shareholders’ equity will increase as well.

Assets	=	Liabilities	+	Shareholders' equity	
				Contributed capital	+ Retained earnings
+ land				+ common stock	
				+Additional paid- in capital	

Return on equity = Net income / Average shareholders' equity – The transaction does not include revenues or expenses so net income remains the same. The transaction will cause average shareholders’ equity to increase. Since the denominator of the ratio is increasing, return on equity will decrease.

Debt to equity = Total liabilities / Total shareholders' equity – The transaction does not have an impact on liabilities. Total shareholders’ equity will increase. Thus, the debt to equity ratio will decrease because the denominator of the ratio is increasing.

Profit margin = Net income / Net sales – The transaction does not include revenues or expenses so net income remains the same. Net sales remains the same because the transaction does not include revenue. Thus, profit margin will remain the same.

22. **B** – Negative \$30,000

Keep in mind the ways changes in CA and CL effect cash flows:

CA go ↑, Cash goes ↓
CL go ↑, Cash goes ↑

Operating section

Net income	\$20,000
Prepaid exp	-\$50,000
Inventory	-\$40,000
Account receivable	\$30,000
Depreciation	\$15,000
Accounts payable	\$10,000
Wages payable	<u>\$15,000</u>
Net cash flow	-\$30,000

Notes payable is not included in the calculation of net cash flow because of the third bullet below the balance sheet. It is telling us that we are paying off a note payable with \$25,000 in capital stock. This means that we owed someone \$25,000. Instead of giving them cash, we gave them \$25,000 in of stock in our company. Since this transaction does not involve cash, the change in notes payable does not affect net operating cash flows. The transaction below illustrates that cash is not part of reducing a note payable by issuing common stock. The transaction below is referred to as a “non-cash transaction.”

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
		(25,000) note payable		\$25,000 common stock		

23. **C** - The only cash flow related to investing activities is the reducing of property, plant and equipment. A reduction in PPE typically comes from selling off a fixed asset such as a building. From 2000 to 2001 PPE was reduced by \$150,000. This means the company had a cash inflow investing activities of \$150,000.

24. **B** – The only cash flow we had related to financing activities was paying dividends of \$4,500. Paying dividends is a cash outflow that is recorded in the financing section.

Notes payable is not included in the calculation of net cash flow because of the third bullet below the balance sheet. It is telling us that we are paying off a note payable with \$25,000 in capital stock. This means that we owed someone \$25,000. Instead of giving them cash, we gave them \$25,000 in of stock in our company. Since this transaction does not involve cash, the change in notes payable does not affect net cash flow.

25. **C**

Net cash flow from operations:	-\$30,000
Net cash flow from investing:	\$150,000
Net cash flow from financing:	<u>-\$4,500</u>
Change in cash from 2000 to 2001:	\$115,500
Beginning cash balance:	<u>+\$1,000</u>
Ending cash balance:	\$116,500

26. **D** – When using the indirect method, we need to adjust for every change in current assets (except cash) and current liabilities to convert net income into net cash from operating activities. We also need to add back in depreciation expense because it is a non-cash expense.

Net income:	\$10,000
+ Decrease in AR:	\$4,000
+ Decrease in Inventory:	\$6,000
+ Increase in AP:	\$2,000
+ Depreciation exp:	<u>\$8,000</u>
Change in operating cash	\$30,000

27. **A** – We received \$200 million from selling off an investment and spent \$700 million to purchase equipment. Thus our net cash outflow from investing was \$500 million. Revenue earned from investments is considered to be part of our normal business operations and is put under the operating section. When dividends are paid out they are recorded cash outflow in the financing section.

28. **D** – Collection of interest revenue on a long-term note. When you collect interest revenue, it means that you are receiving cash as an interest payment on money that you loaned to someone else. You have to claim interest revenue on the income statement because we put all revenue we earn on the income statement. Since interest revenue is found on the income statement, cash flows related to interest revenue are considered operating cash flows.

29. **B** – \$110,000

Cash receipts from customers = Sales revenue – Change in AR

Cash receipts from customers = \$100,000 – (-\$10,000)

Cash receipts from customers = \$110,000

30. **A** – \$7,000

Book value of the asset = \$20,000 – \$15,000

Book value of the asset = \$5,000

Gain = Cash received from the sale – Book value

\$2,000 = Cash received from the sale – \$5,000

Cash received from the sale = \$7,000

31. **C** – \$119,000

Cash paid for merchandise = COGS + Change in Inventory – Change in A/P

Cash paid for merchandise = \$121,000 + \$1,000 – \$3,000

Cash paid for merchandise = \$119,000

32. **B** – \$1,027,500

Cash received from customers = Sales – Change in accounts receivable

Cash received from customers = \$1,037,500 - \$10,000 = \$1,027,500

33. **C** – \$777,000

Cash paid to vendors = COGS + Change in inventory – Change in accounts payable

Cash paid to vendors = \$780,000 + (-\$20,000) – (-\$17,000) = \$777,000

34. **C** – \$60,000

Cash from sale of equipment = Net book value + Gain

Cash from sale of equipment = \$50,000 + \$10,000 = \$60,000

Note that in this problem you were given net book value so you do not need to use the value for accumulated depreciation that was given. If you were given gross book value, you would need to use accumulated depreciation to solve for net book value.

Net book value = Gross book value – Accumulated depreciation

35. **C** – This is a bad thing because either COGS has gone down or average inventory has gone up. One or both of these things must happen for inventory turnover to decrease. Firms want to turn their inventory as many times as possible in a period. So they want to see inventory turnover increase. Inventory turnover ratio increases when COGS goes up and/or average inventory goes down.

Inventory turnover ratio = COGS / Average inventory

If COGS has gone down, that means that we are selling less inventory if we assume the cost of our inventory stays the same.

If average inventory goes up, it means that we are having to carry more inventory to do the same amount of sales. Our goal is to minimize the amount of inventory we have to keep on hand for a given level of sales.

36. **B** – This is because the debt to equity ratio is a solvency ratio.

37. **B** – Return on assets

38. **A** – \$100,000

Return on equity = Net income/ Average shareholder's equity

0.10 = Net income/ \$1,000,000

Net income = \$100,000

39. **C** – 0.50

Preferred dividend = $5,000 \times 0.10 \times \$100 = \$50,000$

Average # of common shares outstanding = $(80,000 + 120,000)/2 = 100,000$

EPS = (Net income – Preferred dividends)/ Average # of common shares outstanding

EPS = $(\$100,000 - \$50,000)/ 100,000$

EPS = 0.50

40. **C** – 60%

Gross margin = Sales – COGS

Gross margin = \$50 million - \$20 million = \$30 million

Gross margin ratio = Gross margin / Net sales

Gross margin ratio = $\$30 \text{ million} / \50 million

Gross margin ratio = 0.60 = 60%

41. A – 55.5%

Net sales	\$100,000
-COGS	-\$11,000
-Depreciation	-\$8,000
-Insurance exp	-\$4,000
-Salary exp	-\$12,500
<u>-Rent exp</u>	<u>-\$9,000</u>
Net income	\$55,500

Profit margin = Net income / Net sales

Profit margin = \$55,500 / \$100,000

Profit margin = 0.555 = 55.5%

42. B – 60.0%

Total expenses = \$44,500

10% reduction in expenses = $\$44,500 \times 0.9 = \$40,050$

Net income = \$100,000 - \$40,050 = \$59,950

Profit margin = \$59,950 / \$100,000 = 0.5995 = 60.0%

Note that we reduced total expenses by 10% by multiplying \$44,500 by 0.90. If you want to reduce a value by a percentage, multiply the value by one minus the percentage ($1 - 0.10 = 0.90$). Finding 90% of \$44,500 is the same thing as reducing the value by 10%. Alternatively, you could have done two steps to reduce the value by 10%.

$\$44,500 \times 0.10 = \$4,450$

Now that we have found 10% of \$44,500 is \$4,450, we can subtract \$4,450 from \$44,500 to reduce \$44,500 by 10%

$\$44,500 - \$4,450 = \$40,050$

Both methods will result in the same value for the 10% reduction in expenses. The advantage of the first method is that it allows us to do the calculation in a single step.

43. D – Working capital remains the same, gross margin remains the same, and current ratio decreases

As we can see below, this transaction will cause cash and accounts payable to decrease. Cash is a current asset. Accounts payable is a current liability.

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash)		(accounts payable)		

Working capital = Current assets – Current liabilities – Working capital is covered in the ratios chapters; however, it is not actually a ratio because it is simply current assets minus current liabilities. Both current assets and current liabilities will be reduced by the same amount. Thus, working capital will remain the same.

To illustrate why working capital will remain the same, we can make up numbers for current assets and current liabilities. The problem tells us that the current ratio was 1:2 prior to the transaction. This means that our current liabilities were double our current assets. So let's use CA = \$100 and CL = \$200. We can use any numbers we want as long as CL is double CA.

$$\text{Working capital prior to transaction} = \$100 - \$200 = -\$100$$

Now let's assume that we paid a \$50 account payable liability with cash. This means CA = \$50 and CL = \$150.

$$\text{Working capital after the transaction} = \$50 - \$150 = -\$100$$

We didn't have to make up numbers to get the answer for the impact on working capital. When CA and CL go down by the same amount, working capital will remain the same no matter what the current ratio was prior to the transaction. We are going to see that this is not the case with current ratio. So we need to pay close attention to whether we are asked about working capital or current ratio. Even though they both use the same values, they are not calculated the same way.

Gross margin ratio = Gross margin / Net sales – This transaction does not impact gross margin or net sales so the gross margin ratio remains the same. We know the transaction does not impact either gross margin or net sales because neither revenues nor expenses were part of the transaction.

Current ratio = Current assets / Current liabilities – Current assets will decrease, which would cause the ratio to decrease. Current liabilities will decrease, which would cause the ratio to increase. Since the movement in the numerator and denominator conflict, we can't answer this without additional information. We need to know the current ratio prior to the transaction to be able to determine the impact on current ratio. We were told the current ratio prior to the transaction was 1:2. This means that current liabilities were twice as much as current assets.

For this scenario with current ratio where the movement in the numerator and denominator conflict, it is often easiest to make up numbers to determine the impact on current ratio. We can use any numbers we want for current assets and current liabilities prior to the transaction as long as current liabilities are double current assets. Let's use CA = \$100 and CL = \$200.

$$\text{Current ratio before transaction} = \$100 / \$200 = 0.5$$

We can also use any number we want for the amount we paid towards the account payable with cash. Let's use a value of \$50. So we will reduce current assets and current liabilities by \$50.

$$\text{Current ratio after transaction} = \$50 / \$150 = 0.3333$$

Since the current ratio was less than one prior to the transaction, the transaction will cause the current ratio to decrease. Make sure to note that we had to know the current ratio prior to the transaction to be able to solve this problem. The answer was decrease because the current ratio was less than one prior to the transaction. The answer would have been different if the current ratio had been equal to one or greater than one.

44. C - If shipping costs are under the terms FOB destination, that means the seller will pay for shipping costs. Therefore, this will not be included in the buyer's cost of goods available for sale.

45. **B** – Current ratio decreases, return on equity increases, and profit margin remains the same

Purchasing treasury stock with cash will cause both cash and contributed capital to decrease. Contributed capital is part of shareholders' equity. Thus, shareholders' equity will also decrease.

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash)				(treasury stock)

Current ratio = Current assets / Current liabilities – Current assets will decrease because cash is a current asset. Liabilities are not affected by the transaction. Thus, the current ratio will decrease.

Return on equity = Net income / Average shareholders' equity – Net income is not affected by the transaction because the transaction does not include revenues or expenses. Average shareholders' equity will decrease. Since the denominator of the equation is decreasing, the ratio will increase.

Profit margin = Net income / Net sales – Net income is not affected by the transaction because the transaction does not include revenues or expenses. Net sales are not affected because the transaction does not include revenue. Thus, profit margin will remain the same.

46. B – Purchased supplies on account

Debt to equity = Total liabilities / Total stockholders' equity

The debt to equity ratio will increase when total liabilities increase or total stockholders' equity decreases.

Issued common stock in exchange for cash

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+cash				+common stock		
				+additional paid- in capital		

The increase in cash will have no effect on the debt to equity ratio. Increasing contributed capital will cause shareholders' equity to increase. An increase in shareholders' equity will result in a decrease in the debt to equity ratio.

Purchased supplies on account

Assets		Liabilities		Shareholders' equity		
				Contributed capital	+	Retained earnings
+supplies		+accounts payable				

The increase in supplies will have no effect on the debt to equity ratio. The increase in accounts payable will cause total liabilities to increase. The increase in total liabilities will cause the debt to equity ratio to increase.

Paid off an account payable with cash

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash)		(accounts payable)		

The decrease in cash will have no effect on the debt to equity ratio. The decrease in accounts payable will decrease total liabilities. The decrease in total liabilities will cause the debt to equity ratio to decrease.

Received cash for a sale previously made on credit

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
+cash				
(accounts receivable)				

Neither the increase in cash nor the decrease in accounts receivable will affect the debt to equity ratio. So this transaction has no effect on the debt to equity ratio.

47. C – \$8,150

$$\text{Cash} = \text{Sales} - \text{Change in Accounts Receivable}$$

$$\text{Cash} = \$10,000 - \$1,850$$

$$\text{Cash} = \$8,150$$

48. C – \$9,000

$$\text{Cash} = \text{COGS} + \text{Change Inventory} - \text{Change Accounts Payable}$$

$$\text{Cash} = \$4,000 + \$1,000 - (-\$4,000) = \$9,000$$

49. A – \$0 because depreciate is a non-cash expense.

50. A – \$0

$$\text{Cash} = \text{Insurance Expense} + \text{Change in Prepaid Insurance}$$

$$\text{Cash} = \$150 - \$150 = \$0$$

51. A – \$0

$$\text{Cash} = \text{Interest Expenses} - \text{Change in Interest Payable}$$

$$\text{Cash} = \$100 - \$100 = \$0$$

52. C – \$1,250

$$\text{Cash} = \text{Net Income} - \text{Change in Retained Earnings} - \text{Change Dividends Payable}$$

$$\text{Cash} = \$2,000 - \$750 - \$0 = \$1,250$$

53. C – Sold inventory for \$50 that cost \$20

EPS = (Net income – Preferred dividends) / Average stockholder's equity

We can see from the equation above that earnings per share will increase when net income increases. It will also increase when preferred dividends or average stockholder's equity decrease.

Recorded an insurance expense for the period

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash or prepaid insurance)				(insurance expense)

It isn't clear if recording the insurance expense will reduce cash or prepaid insurance; however, it doesn't matter because a change in either account has no effect on the EPS equation. Recording the insurance expense will reduce net income. So this transaction will cause EPS to decrease.

Received cash for a sale previously made on credit

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+cash						
(accounts receivable)						

Increasing cash and reducing accounts receivable will have no effect on the EPS equation.

Sold inventory for \$50 that cost \$20

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
\$50 accounts receivable						\$50 sales revenue
(\$20) inventory						(\$20) cost of goods sold expense

When we sell inventory, two things need to be recorded. First, we increase accounts receivable and sales revenue by \$50. Then we need to reduce the value of inventory by \$20 through a cost of goods sold expense. The increase in accounts receivable and the decrease in inventory have no effect on the EPS equation. Recording sales revenue will increase net income; however, recording an expense will decrease net income. Since revenue from the transaction is greater than the cost of goods sold expense from the transaction, net income will increase. An increase in net income will cause EPS to increase.

Issued common stock in exchange for cash

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+cash				+common stock		
				+additional paid- in capital		

The increase in cash has no effect on the EPS equation. Increasing contributed capital will cause shareholders' equity to increase. This will increase the denominator of the EPS equation causing the ratio to decrease.

54. E – Both A and D

Return on assets = Net income / Average total assets

The return on assets ratio will decrease when either net income decreases or average total assets increase.

Received cash for services that will be delivered in the future

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
+cash		+unearned revenue		

We cannot claim revenue until the services are provided. So we increase cash and our liability account unearned revenue. The increase in unearned revenue has no effect on the ROA equation. The increase in cash will cause total assets to increase. When total assets increase, ROA will decrease.

Paid a stock dividend

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
				+common stock (stock dividend)
				+additional paid- in capital

Paying a stock dividend has no effect on net income or total assets, which means it has no effect on ROA.

Paid off an account payable with cash

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
(cash)		(accounts payable)		

Reducing the value of accounts payable has no effect on the ROA equation. Reducing cash will decrease total assets. A decrease in total assets will cause the ROA equation to increase.

Purchased a piece of equipment in exchange for common stock that was not previously issued

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
+equipment				+common stock

Increasing common stock will have no effect on the ROA equation. Increasing the value of the asset equipment will increase total assets. An increase in total assets will cause ROA to decrease.

55. C – 26.9%

ROE = Net income / Average shareholders' equity

Net income = \$36,000

Shareholders' equity 1/1/16 = Common stock + Retained earnings

Shareholders' equity 1/1/16 = \$100,000 + \$26,000 = \$126,000

Shareholders' equity 12/31/16 = Common stock + Retained earnings

Shareholders' equity 12/31/16 = \$100,000 + \$42,000 = \$142,000

Average shareholders' equity 2016 = (\$126,000 + \$142,000) / 2 = \$134,000

ROE = \$36,000 / \$134,000 = 0.269 = 26.9%

56. A – 56.0%

Gross margin ratio = Gross margin / Net sales

Gross margin ratio = \$280,000 / \$500,000 = 0.56 = 56%

57. B – 1.60

Current assets = Cash + Accounts receivable + Inventory

Current assets = \$24,000 + \$21,200 + 25,400 = \$70,600

Current liabilities = Accounts payable + Income taxes payable

Current liabilities = \$34,000 + \$10,000 = \$44,000

Current ratio = Current assets / Current liabilities

Current ratio = \$70,600 / \$44,000 = 1.60

58. A – \$3.60

Net income = \$36,000

Preferred dividends = \$0

Shares outstanding 1/1/16 = \$100,000 / \$10 = 10,000 shares

Shares outstanding 12/31/16 = \$100,000 / \$10 = 10,000 shares

Average shares outstanding 2016 = (10,000 + 10,000) / 2 = 10,000

Earnings per share = (\$36,000 – \$0) / 10,000 = \$3.60 per share

59. D – Cash flows to assets ratio decreases, current ratio increases, and return on equity decreases

Our company is going to increase our cash by issuing common stock. Issuing common stock will increase contributed capital, which will increase total shareholders' equity.

Assets	=	Liabilities	+	Shareholders' equity
		Contributed capital	+	Retained earnings
+cash			+common stock	
			+additional paid- in capital	

Cash flows to assets ratio = Net cash flow from operating activities / Avg total assets –

Cash is increasing due to this transaction; however, net cash flow from operation activities (NCFOA) remains the same. Cash raised from issuing stock is classified as a cash flow from financing activities, not operating activities. Cash is an asset so average total assets will increase. This will cause the cash flows to assets ratio to decrease.

Current ratio = Current assets / Current liabilities – Cash is a current asset that is increasing. Liabilities are not affected by the transaction. Thus, current ratio will increase.

Return on equity = Net income / Average stockholders' equity – Net income remains the same because the transaction does not include revenues or expenses. The transaction increases average stockholders' equity. Since the denominator is increasing, return on equity will decrease.

60. A – Return on assets increases, return on equity remains the same, current ratio remains the same

As we can see below, this transaction will cause cash and accounts payable to decrease. Cash is a current asset. Accounts payable is a current liability.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
(cash)		(accounts payable)				

Return on assets = Net income / Average total assets – Net income is not affected by this transaction because the transaction includes neither revenues nor expenses. Average total assets will decrease. Since the denominator of the ratio is decreasing and the numerator stays the same, the ratio will increase.

Return on equity = Net income / Average shareholders' equity – Net income is not affected by this transaction because the transaction includes neither revenues nor expenses. We can see in the transaction above that shareholders' equity is not affected by this transaction. Thus, return on equity will remain the same.

Current ratio = Current assets / Current liabilities – Current assets will decrease, which would cause the ratio to decrease. Current liabilities will decrease, which would cause the ratio to increase. Since the movement in the numerator and denominator conflict, we can't answer this without additional information. We need to know the current ratio prior to the transaction to be able to determine the impact on current ratio. We were told the current ratio prior to the transaction was 1:1. This means that current assets and current liabilities were equal.

For this scenario with current ratio where the movements in the numerator and denominator conflict, it is often easiest to make up numbers to determine the impact on current ratio. We can use any numbers we want for current assets and current liabilities prior to the transaction as long as current liabilities are equal to current assets. Let's use CA = \$100 and CL = \$100.

$$\text{Current ratio before transaction} = \$100 / \$100 = 1$$

We can also use any number we want for the amount we paid towards the account payable with cash. Let's use a value of \$50. So we will reduce current assets and current liabilities by \$50.

$$\text{Current ratio after transaction} = \$50 / \$50 = 1$$

Since the current ratio was equal to one prior to the transaction, the current ratio will remain the same.

61. D – Provided services where cash will be collected in the following period

Cash flows to sales ratio = Net cash flows from operating activities / Net sales

The cash flows to sales ratio will decrease either net cash flows from operating activities decreases or net sales increase.

Sold a building for cash

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
+cash				
(building)				

Buildings are classified as long-term assets. Cash generated from selling a long-term asset is classified as a cash flow from investing activities. Even though cash is increasing, net cash flows from operating activities remains the same. Reducing the value of the building has no effect on the cash flows to sales ratio. So there is no effect on the cash flows to sales ratio.

Purchased supplies on account

Assets	=	Liabilities	+	Shareholders' equity
				Contributed capital + Retained earnings
+accounts payable				
+supplies				

This transaction does not involve a cash flow so net cash flow from operating activities is not affected. Neither the increase in supplies nor the increase in accounts payable will affect the cash flow to sales ratio. So this transaction has no effect on the cash flow to sales ratio.

Issued and paid a cash dividend

Assets	=	Liabilities	+	Shareholders' equity
(cash)				Contributed capital + Retained earnings
				(dividend)

Cash flows related to dividend payments are classified as cash flows from financing activities. Even though cash is decreasing, net cash flow from operating activities are not affected by the transaction. This transaction does not affect net sales. So there is no effect on the cash flows to sales ratio.

Provided services where cash will be collected in the following period

Assets	=	Liabilities	+	Shareholders' equity
+accounts receivable				Contributed capital + Retained earnings
				+sales revenue

The increase in accounts receivable has no effect on the cash flows to sales ratio. The increase in sales revenue will cause net sales to increase. When net sales increases, the cash flows to sales ratio will decrease.

62. C – Investing activities because we are receiving cash for the disposal of a long-term asset.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+cash						
-equipment						

63. A – Non-cash transaction because we did not yet pay cash for the wages. Recording accrued wages means we recorded the salary expense and created the liability salaries payable.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+salaries payable						
						-salary expense

64. B – Operating activity. For the purposes of the statement of cash flows, payment with a check is the same thing as payment with cash. Both forms of payment reduce the cash balance in the company's bank account.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
-accounts payable						
-cash						

65. A – Non-cash transaction because purchasing inventory with payment terms means that we are purchasing the inventory on account. We receive the inventory today; however, we will pay for the inventory on a future date. Cash is not involved in the transaction.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+inventory		+accounts payable				

66. B – Operating activity because cash received from the sale of inventory is an operating cash flow.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
+cash						+sales revenue
-inventory						-cost of goods sold

67. D – Financing activity because cash payments for dividends are classified as financing activities.

Assets	=	Liabilities	+	Shareholders' equity		
				Contributed capital	+	Retained earnings
-cash						-cash dividend