1A: For the year ended 2022.1.29:
(i). Profit Margin = Net Income/ Net Sales = 270,066 / 3,712,768 = **7.27%**
(ii). Return on equity = Net Income/ Average stockholders' equity = 270,066 / [(949,312+837,324)/2] = **30.23%**
(iii). Earnings per share = (Net Income - dividends on preferred stock)/ Average shares of common stock outstanding = (270,066 - 0) / [(62,399+52,985)/2] = **$4.68**
(iv). Price earnings ratio = stock price / EPS = 36.49 / 4.681 = **7.80**

For the year ended 2023.1.28:
(i). Profit Margin = Net Income/ Net Sales = 10,385 / 3,697,751 = **0.28%**
(ii). Return on equity = Net Income/ Average stockholders' equity = 10,385 / [(706,569+837,324)/2] = **1.35%**
(iii). Earnings per share = (Net Income - dividends on preferred stock)/ Average shares of common stock outstanding = (10,385 - 0) / [(49,002+52,985)/2] = **$0.20**
(iv). Price earnings ratio = stock price / EPS = 27.31 / 0.20365 = **134.10**

1B: For the year ended 2022.1.29:
(i). Receivables turnover ratio = Net credit sales/ Average account receivable = 3,712,768 / [(69,102+83,857)/2] = **48.55 times**
(ii). Average collection period = 365ds / Receivables turnover ratio = 365/ 48.5459 = **7.52 ds**
(iii). Inventory turnover ratio = Net credit sales/ Average account receivable = 1,400,773 / [(404,053+525,864)/2] = **3.01 times**
(iv). Average days in inventory = 365ds / Inventory turnover ratio = 365 / 3.0127 = **121.15 ds**
(v). Current ratio = Current assets / Current liabilities = 1,507,759 / 1,015,240 = **1.49 to 1**
(vi). Times interest earned ratio = (Net income + Interest expense + Income tax expense) / Interest expense = (270,066+34,110+38,908) / 34,110 = **10.06 times**

For the year ended 2023.1.28
(i). Receivables turnover ratio = Net credit sales/ Average account receivable = 3,697,751 / [(104,506+69,102)/2] = **42.60 times**
(ii). Average collection period = 365ds / Receivables turnover ratio = 365/ 42.5989 = **8.57 ds**
(iii). Inventory turnover ratio = Net credit sales/ Average account receivable = 1,593,213 / [(505,621+525,864)/2] = **3.09 times**
(iv). Average days in inventory = 365ds / Inventory turnover ratio = 365/ 3.089 = **118.16 ds**
(v). Current ratio = Current assets / Current liabilities = 1,228,018 / 902,200 = **1.36 to 1**
(vi). Times interest earned ratio = (Net income + Interest expense + Income tax expense) / Interest expense = (10,385 + 25,632 + 56,631) / 25,632 = **3.61 times**

2A:
1. The profit margin dropped dramatically from 7.27% in Fiscal 2021 to 0.28% in

Fiscal 2022. This implies a significant decline in the company's ability to convert its revenue into profits. From the income statement, we can see that cost of sales has increased significantly, from 1.40 million to 1.59 million. This leads to lower net income and decreases the profit margin.

2. One possible reason for the increase of expense is the **effects of pandemic** on the global economy. Although the direct impacts of the COVID-19 have shown signs of abatement, ANF has experienced various other adverse impacts in the current economic environment, including supply chain disruptions, inflationary pressures such as higher freight and labor cost. (From Item 1A "Risk Factors")

3. Another possible reason is the company's **global store network optimization**. In the fiscal year 2022, the company expanded its operations by opening 59 new stores, which is likely to have an impact on its expenses, potentially causing an increase in costs. The addition of these new stores involves various costs such as construction, lease or purchase of property, hiring and training of new staff, inventory stocking, and marketing efforts to promote the newly opened locations. These expenses associated with store expansion can contribute to a rise in the company's overall costs and potentially affect its profitability. (From "Current trends and outlook" section)

4. The **impact of global events and uncertainty** could also impact the profit margin negatively. Global challenges and the changing global geopolitical environment, could adversely impact business in certain areas of ANF(From "Impact of global events and uncertainty")

5. And finally, the reason might be the **fierce competition** between ANF and other brands in the industry. The competitive business environment can cause the company to engage in greater than expected promotional activity, which would result in pressure on average unit retail and gross profit.(From the "competition" section)

2B:

Current Ratio:

1. The current ratio dropped from 1.49 to 1 in 2022, to 1.36 to 1 in 2023. The drop in current ratio implies a potential weakening of a company's liquidity and ability to meet its immediate financial obligations.

2. One possible reason for the decrease of liquidity is ANF's **reliance on excess operation cash flows generated during Fall season**. We can see from the "Liquidity and capital resources" that ANF relies on this to fund operations throughout the year. This indicates that the company is vulnerable to cash shortages resulting in low liquidity. So the decrease of current ratio is natural in different Fiscal years.

3. We can see the cash and equivalents has dropped dramatically in balance sheet. So another possible reason is **the company's decision on directing its primary cash requirements towards prioritizing investments in the business**("Primary source and use of cash"), including the modernization of the retail merchandising system and continuing to fund operating activities, which might caused additional expenses, thus decreasing the total current assets of cash and equivalents. This might cause additional expenses, thus decreasing the total current assets of cash and equivalents.

4. We can also see that the Board of Directors' approval on the **repurchase of stocks**

may also be another potential reason for the decrease in the current ratio. It is mentioned that the company repurchased 4.8 million shares for approximately $126 million during Fiscal 2022. This means that a significant portion of the company's cash or cash equivalents was used for share repurchases, which could reduce the current assets and potentially impact the current ratio.

Times interest earned ratio:

1. TIE dropped from 10.06 times in Fiscal 2021 to 3.61 times in Fiscal 2022, implying that the company's earnings are less able to cover its interest payments, which raises concerns about the company's ability. This decline indicates that the company's earnings have become less capable of meeting its interest expenses, suggesting potential financial strain and a higher risk of default.
2. One possible reason for the decrease in the times interest earned ratio is **the impact of asset impairment charges**. In the fiscal year 2022, the company recorded impairment charges for certain assets, including stores and operating lease right-of-use assets. These charges reduced the carrying amount of the impaired assets to their fair value. As a result, the company's profitability and available income to cover interest expenses may have been reduced, leading to a decrease in the times interest earned ratio.("Asset Impairment")
3. Also, **the store and distribution expense** might increase the cost of good sold. This means that the numerator in the Times Interest Earned (TIE) ratio, which represents earnings before interest and taxes (EBIT), becomes smaller. As a result, the TIE ratio decreases.

2C:

Yes. I would invest in ANF.

1. The unsatisfactory performance of Abercrombie & Fitch Co. (ANF) in Fiscal 2022 can be attributed primarily to the increase in the cost of goods sold. However, I believe this issue is solvable in the coming years as the company has identified the problems clearly in their annual report, which include factors such as the influence of the pandemic, network optimization, and impairment. Additionally, ANF's "Always Forward plan" provides a strategic framework that indicates the company's commitment to addressing these challenges and driving positive growth in the future.
2. Secondly, the company performance recently is quite ideal. For the Q3 2023 Earnings call transcript, we can see that net sales increased 20% with growth across all regions, brands and direct selling channels. The company also exceeded expectations on the bottom line with a 13.1% operating margin, for the year to date period, the net sales were up to 13% to last year with an operating margin of 9.3% over 900 basis points better than 2022.
3. Though there are voices that criticize ANF for its discrimination and exclusionary practices like the documentary film "White Hot", the company is trying its best to dive deep into the diversity and cater to the customers' needs and preferences, launching initiatives to improve its image and culture. This shows that ANF is committed to improving and creating a positive impact on the industry.

Reference:
1. ANF 2023 Q3 earnings call transcript:
Abercrombie & Fitch Co. (NYSE:ANF) Q3 2023 Earnings Call Transcript (yahoo.com)
2. Documentary movie: "*White Hot: The Rise & Fall of Abercrombie & Fitch*"