Spring 2025 Name:

Quiz 1: Valuation

Answer all questions and show necessary work. Please be brief. This is an open-book, open-notes exam.

1. Velcor Hotels is a company that operates hotels in the United States and Mexico, with the following breakdown of cash flows in the two countries:

	US	Mexico
Currency	Millions of Dollars	Millions of Pesos
Operating income (after-tax)	$350.00	MXN 1,500.00
+ Depreciation	$100.00	MXN 600.00
- Cap Ex	$150.00	MXN 900.00
Free Cash Flow	$300.00	MXN 1,200.00

Velcor has a cost of equity of 10% and a cost of capital of 9%, in US dollars, for its US properties. The country risk premium is 2% and the expected inflation rates in the US and Mexico are 2.5% and 5.5% respectively. If Velcor plans to divest its Mexican operations, and is planning on using the cash flows estimated in the table, with an expected growth rate of 6% (in pesos), to value the operations, **what discount rate would you use to discount the cash flows? (2 points)**

2. You have been asked to estimate the cost of equity for Comarch Tech, a firm with operations in Germany and Hungary and have collected the following information:

	Germany	Hungary
Revenues (in millions of Euros)	€ 150.00	€ 100.00
Local Currency	Euro	Forint
10-year bond rate in Euros	2.50%	4.00%
10-year bond in local currency	2.50%	6.00%
Std Devi of Equity Index	15%	20%
Std Dev of Govt Bond	12%	15%

If the company has an equity beta of 1.20 and the equity risk premium for mature markets (like Germany) is 5%, **estimate the cost of equity in Hungarian Forint.** (3 points)

3. You are trying to compute an **implied equity risk premium** for an emerging market index, and have the following information:
a. The companies in the index are expected to **report earnings of 300** and to pay out **dividends and buybacks of 200** in **the next year**.
b. The index is trading at **12 times forward earnings** (expected earnings next year)
c. The earnings and cash flows are **expected to grow at 3%,** which is also the riskfree rate
Estimate the implied equity risk for this index. (2 points)

4. You are trying to estimate the expected free cash flow for Rumble Enterprises, and have collected the information for the most recent fiscal year, and expectations for next year:

<table>
<tr><th></th><th>Most recent year ($ mil)</th><th>Expectations for next year</th></tr>
<tr><td>Revenues</td><td>$1,000.00</td><td rowspan="8">Revenues and depreciation are expected to grow 20%.
EBIT margin (%) will double
Capital expenditures will be 125% of depreciation.
Non-cash working capital is expected to remain at 10% of revenues
Effective tax rate remains the same.</td></tr>
<tr><td>EBITDA</td><td>$250.00</td></tr>
<tr><td>Depreciation</td><td>$100.00</td></tr>
<tr><td>EBIT</td><td>$150.00</td></tr>
<tr><td>- Interest expense</td><td>$50.00</td></tr>
<tr><td>EBT</td><td>$100.00</td></tr>
<tr><td>- Taxes</td><td>$20.00</td></tr>
<tr><td>Net Income</td><td>$80.00</td></tr>
</table>

Estimate the **expected free cash flow to the firm** next year. (3 points)