Forecast the Ferry

Read economic data, identify trends, and test a prediction

MWH.P.2.4.A "Evaluate economic data from charts and graphs, noting trends and making predictions."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Circle each ticket total in the table and write its change from the prior year beside each total after 2021. Underline one sentence in the passage that explains why a forecast could fail.

A Ferry's Changing Sales

1 The town of Pine Inlet has one passenger ferry. For this exercise, the table gives invented annual figures for that ferry, not records from a real town. Tickets sold measure how many rides customers bought, while the average ticket price is the mean amount paid per ride. The figures cover four complete years.

PINE INLET FERRY, ANNUAL SALES

Year	Tickets sold	Average ticket price
2021	40,000	$5
2022	48,000	$6
2023	54,000	$7
2024	57,000	$8

2 A trend describes the direction and pace of change across several observations. To check the pace, subtract one year's value from the next year's value rather than comparing only the first and last years. A price increase does not automatically prove that a business earned a profit. Fuel, wages, and repairs also cost money.

3 The ferry runs all year, but storms sometimes cancel crossings. A new bridge or a change in tourism could also affect demand after the period shown. A forecast assumes some part of the past pattern will continue, so it should name that assumption. For estimated ticket revenue, multiply tickets sold by the average ticket price.

2 ANSWER WITH EVIDENCE

Use the passage

1. How did ticket sales change from 2021 to 2024? Give the difference in tickets.

2. Compare the year-to-year pattern in tickets sold with the pattern in average ticket price. What happened to the pace of each increase?

3. Estimate ticket revenue in 2021 and 2024. What do the two estimates show?

4. If the ticket-price pattern continues, what average price would you predict for 2025? State the assumption behind your prediction.

3 YOUR TURN

Your own words

Make a 2025 ticket-sales forecast that does not simply repeat the latest year's increase. In three sentences, cite two year-to-year changes that support your forecast, estimate 2025 ticket revenue if the average price stays $8, and explain one reason your forecast might fail.

ANSWER KEY

Forecast the Ferry

HIGH SCHOOL · MWH.P.2.4.A

PART 1 · READ AND MARK

Circle each ticket total in the table and write its change from the prior year beside each total after 2021. Underline one sentence in the passage that explains why a forecast could fail. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	How did ticket sales change from 2021 to 2024? Give the difference in tickets.	**Ticket sales increased by 17,000, from 40,000 to 57,000.**
2	Compare the year-to-year pattern in tickets sold with the pattern in average ticket price. What happened to the pace of each increase?	**Ticket sales rose by 8,000, then 6,000, then 3,000, so their growth slowed. The average price rose by $1 each year.**
3	Estimate ticket revenue in 2021 and 2024. What do the two estimates show?	**Estimated revenue was 40,000 × $5 = $200,000 in 2021 and 57,000 × $8 = $456,000 in 2024. It increased by $256,000.**
4	If the ticket-price pattern continues, what average price would you predict for 2025? State the assumption behind your prediction.	**The predicted average price is $9, assuming it rises by $1 again.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Ticket sales rose by 8,000 from 2021 to 2022 but by only 3,000 from 2023 to 2024, so I predict 59,000 tickets in 2025. At an $8 average price, estimated ticket revenue would be $472,000. Storms could cancel more trips than usual and make this forecast too high.

Accept other reasonable forecasts that use two correct year-to-year changes and multiply the predicted ticket total by $8. The stated reason for uncertainty should be plausible.