

Answer key

TMS-CSA-1126 · Excel and Power BI for customer service analytics

16–19 November 2026 · Ahmad A. Khan · TMS Care, Q3 2026, as of 1 October 2026, 18:00

Do not project this. Do not hand it out. The population you brief is 388 clean tickets, not the raw 398. Flag the ten dirty rows. Do not delete them, and do not type over the source.

THE FILE

Ten dirty rows

Three clocks run backwards. Four are resolved with no time. Two are open with a time filled. One agent is coded A3.

Ticket	What is wrong
TMS-260629-0108	Resolved before it was opened. Delivery, Phone, P2, A04.
TMS-260630-0109	Resolved before it was opened. Delivery, Email, P3, A08.
TMS-260701-0110	Resolved before it was opened. Delivery, App, P3, A14.
TMS-260702-0111	Marked resolved, no resolved time. Delivery, WhatsApp, P2, A11.
TMS-260706-0114	Marked resolved, no resolved time. Delivery, Phone, P2, A04.
TMS-260707-0115	Marked resolved, no resolved time. Delivery, Email, P3, A08.
TMS-260708-0116	Marked resolved, no resolved time. Delivery, App, P3, A14.
TMS-260709-0117	Still open, but a resolved time is filled. Delivery, WhatsApp, P2, A11.
TMS-260629-0252	Still open, but a resolved time is filled. Product, Phone, P3, A01.
TMS-260630-0253	Agent code A3 is not on the roster. Product, Email, P2.

THE BRIEF

What the file will support

The blend clears. The finding is the slice the blend hides. If a pair's blend fails 80%, they still have dirty rows in the base, or the clock is moving.

Cut	Number
Blended breach	15.5% on 388. Attainment 84.5% against the 80% promise.
P1, Phone, Central Hub, opened 14:00 or later	Breach 76.2%, n=42, 32 past the promise. Reopen 0%. Open 3, all 3 already late.
Chat	Breach 5.3% on 75. Chat P1 breach 11.5% on 26. Calm chat is not the finding.
Fee-copy and charge-not-recognised	n=56, reopen 55.4%, breach 0%. The clock is kept. The work comes back.
Billing reopen	Before the week of 3 August: 5.6% (n=36). From that week: 36.7% (n=90). Breach stays in band, 11.1% then 12.2%.
Agents	A07 reopen 33.3% on 39. A12 reopen 37.5% on 32. A03 reopen 0% on 34, and A03's desk is Loyalty. Do not coach A07 on attitude.
Open pile	20. 7 already late, 13 still inside the promise. Small and recent. August billing did not leave a silent backlog.
Repeat customers	36 of 306 (12%). They account for 118 of 388 tickets (30%).
CSAT and NPS	CSAT 3.95 and NPS +33 on 97 replies from 219 invites. Response 44%.
Response by channel	Phone 62% (52 of 84). Email 19% (10 of 54).

Cut	Number			
Queue NPS	Delivery -14 on 21 replies. Loyalty +100 on 9. Under 15 replies, say n or take it off the page.			
Complaints	n	Upheld or partial	Still open	Open past 10 days
Incorrect charge	26	22	0	0
Delay	20	14	0	0
Product failure	10	8	0	0
Staff conduct	6	5	0	0
Policy	6	4	0	0
Privacy	8	3	5	5, all North Hub

Compensation in QAR is not the cost of a complaint.

THURSDAY

Decision drill

Card	Mark
A. Six conduct cases, five upheld	Fails. Real, and too small for a programme.
B. Fee-copy	Can pass. Meets the clock and comes back. Volume.
C. Privacy, open, past 10 days, North Hub	Can pass. Urgency.
D. Central afternoon P1 phone	Can pass. A different failure.

One ask. The other two can be named as real, not this month's spend.

THE GATES

Check answers

Day 1

Pass is 6 of 8, plus a finished summary table.

Question	Answer
What is the grain of ticket_log?	One row is one ticket.
A row fails the trust check. What do you do?	Flag it in a new column and leave the source.
A Resolved row has no resolved time.	A dirty row, not a zero.
Why brief breach rate instead of average hours?	The promise is a threshold. Averages hide who missed it.
Why pin the as-of date instead of using now?	So open tickets age the same way every time the file is opened. The clock is 1 October 2026, 18:00.
A director asks for "CSAT by agent." What is missing?	Window, who was invited, response rate, n, and whether the mix is just their queue.
Three tickets are resolved before they were opened.	Flag them and keep them out of the rate.
How many leadership questions is this course built on?	Four. Speed, wasted effort, who is unhappy, and what changes before Monday.

Day 2

Pass is 4 of 5, including a one-fix sentence you can defend.

Question	Answer
The open pile should be briefed as...	Inside the promise versus already late.
Why is coaching A07 the wrong first move?	A07's reopen rate tracks fee-copy billing, and A12 looks the same.
A complaint with no ticket id...	Stays. It never became a ticket, and dropping it hides it.
Staff conduct: six cases, five upheld. What do you fund?	Not a programme. The cases are real and the base is too small.
Fee-copy contacts in this file...	Meet the clock and still come back.

Day 3

Pass is 4 of 5, plus a page title that is a sentence.

Question	Answer
How do the three files relate?	Surveys to tickets, and complaints to tickets, many to one.
Why does response rate sit next to CSAT?	Email comes back rarely, so its score is not the same evidence as phone.
If blank NPS becomes zero, what happens?	Non-response becomes a detractor and the score collapses.
Which page fails the day even if it is neat?	An agent ranking by CSAT.
A page title that meets the standard...	A sentence that says what is failing and what the blend hides.

Thursday

All four attempted, in writing, before they brief.

Question	Answer
CSAT on a slice with 9 replies.	Brief the direction only if the ticket evidence agrees, and say the base.
The blend clears 80%. The afternoon P1 phone slice does not.	Brief the slice, and say the blend is what hid it.
Complaints with no ticket fall out of a visual.	The visual is filtering complaints through the ticket table.
The ask, at the standard for this course.	One action, one owner, one number, one date.

THE LABS

Formulas they should reach

Walk one cell. Then stop talking. AsOf is the named cell Policy!B12. Do not use NOW().

Flag

```
=IF(AND([@status]="Resolved",[@resolved_at]=""),"Resolved with no time",  
IF(AND([@status]="Open",[@resolved_at]<>""),"Open with a resolved time",  
IF(AND([@resolved_at]<>"",[@resolved_at]<[@opened_at]),"Resolved before opened",  
IF(COUNTIF(Roster[agent_id],[@agent_id])=0,"Agent not on roster",""))))
```

Resolve hours

```
=IF(OR([@resolved_at]="",[@opened_at]=""),NA(),  
IF([@resolved_at]<[@opened_at],NA(),([@resolved_at]-[@opened_at])*24))
```

Breach flag

```
=IF([@Flag]<>"",NA(),  
IF([@resolved_at]="",  
IF((AsOf-[@opened_at])*24>[@sla_target_hrs],1,0),  
IF([@resolved_at]-[@opened_at])*24>[@sla_target_hrs],1,0)))
```

Median for one queue

```
=MEDIAN(FILTER(Tickets[ResolveHrs],(Tickets[Queue]=G2)*(Tickets[Flag]="")))
```

Calendar

```
Calendar =  
ADDCOLUMNS (   
    CALENDAR ( DATE ( 2026, 6, 29 ), DATE ( 2026, 10, 1 ) ),  
    "Week start", [Date] - WEEKDAY ( [Date], 2 ) + 1  
)
```

NPS, broken, then real

```
NPS (blank as zero) =  
VAR Scored =  
    ADDCOLUMNS ( Surveys, "Score", IF ( ISBLANK ( Surveys[nps] ), 0, Surveys[nps] ) )  
RETURN  
    DIVIDE (   
        COUNTROWS ( FILTER ( Scored, [Score] >= 9 ) )  
        - COUNTROWS ( FILTER ( Scored, [Score] <= 6 ) ),  
        COUNTROWS ( Scored )  
    )  
  
NPS =  
VAR Replied =  
    FILTER ( Surveys, NOT ISBLANK ( Surveys[nps] ) )  
RETURN  
    DIVIDE (   
        COUNTROWS ( FILTER ( Replied, Surveys[nps] >= 9 ) )  
        - COUNTROWS ( FILTER ( Replied, Surveys[nps] <= 6 ) ),  
        COUNTROWS ( Replied )  
    )
```