

Name _____ Date _____ Time taken _____

What this sheet trains

Divided attention - holding a second rule in mind while your main attention is busy elsewhere. This is the skill behind listening to a teacher while taking notes, or checking your working while solving the next step.

Strategy: anchor and sweep. Give the main task your focus and let the second task run as a quick, automatic check - do not swap your full attention back and forth.

1 Read and tally

Main task: read the passage once. Second task: the counting rule below.

Counting rule

Every time you read the word map, make one tally mark in the box at the foot of the page. Do not go back and re-read. One pass only.

Any flat map of a round world is wrong in some way, and the only question is which error you are prepared to accept. Gerardus Mercator published his projection in 1569 for one practical purpose: on his map a line of constant compass bearing is a straight line, so a navigator could rule a course on the chart and simply steer it. The price is area. Distances east and west are stretched by a factor that grows towards the poles, and since the map must stretch north and south to match in order to keep angles true, Greenland ends up appearing nearly the size of Africa.

Other projections strike other bargains. An equal-area map preserves the relative size of countries but shears their outlines; a conformal map keeps local angles, and therefore shapes, at the cost of area; a compromise such as the Robinson projection is slightly wrong about everything so as to be badly wrong about nothing. The mathematics of this has been settled since the middle of the nineteenth century. No map can preserve area, angle and distance at once, so every map is an argument about what matters, made in advance of whatever a reader later wants to use it for.

In the 1970s Arno Peters attacked the Mercator world map as propaganda that shrank the tropics and flattered Europe, and the charge has stuck in classrooms ever since. It is half right at best. Mercator's distortion followed from a navigational requirement rather than a colonial one, and the equal-area map Peters promoted was neither new nor his. The useful point survives the bad history. A map carries a claim about importance whether or not its maker intended one, and a reader who cannot name the projection in front of them cannot see the claim being made, which is why most readers never notice it.

Tally here - one mark per map

Make the marks as you read, then write your total before turning the page.

Total

1 Questions - cover the passage first

Answer from memory. Do not look back at the passage.

My tally total

From page 1

Q1. What practical advantage did Mercator's projection give a navigator?

Q2. Why does keeping angles correct force a projection to distort area?

Q3. Why might two atlases showing the same continents still leave different impressions?

Q4. Peters called Mercator's map propaganda. How far does the writer accept that charge?

2 Grid sweep with a running count

Main task: cross out targets. Second task: keep a count in your head.

Rules - read both before you start, then start the timer

Main: cross out every number that is a multiple of 6.

Second: count - silently, no marks - how many numbers end in 2. Write the total in the box only when you have finished the whole grid.

237	806	653	706	144	437	560	679	229	108	427	227
302	891	655	950	461	307	157	414	324	665	152	835
929	901	328	645	506	341	184	242	381	603	746	690
627	529	755	919	868	242	922	945	544	938	387	772
474	155	376	712	546	633	734	587	285	483	126	501
801	563	406	179	149	202	837	265	768	182	608	585
991	509	566	624	495	254	261	839	581	971	223	355
892	110	838	659	733	973	923	966	925	290	426	434

Stop the timer when the grid is finished, not when you write the total.

Numbers ending in 2

Write it once the grid is done

3 Copy and total

Main task: copy each row of digits. Second task: keep a running total.

Rules

Main: copy each four-digit group into the box beside it, in order.

Second: add the two middle digits of every row to a running total as you go.

Write the running total in the box at the end of each row - from memory, not by going back and adding up at the end.

	Copy here	Running total
8 5 3 4		
4 1 9 7		
3 2 3 3		
3 2 7 1		
7 5 9 7		
6 2 4 2		
3 2 8 9		
8 7 9 7		
2 5 7 4		
1 9 7 7		
1 4 5 4		
7 7 1 2		

4 Bridging - answer in a sentence each

Where this shows up outside the sheet.

Q1. Which of your two tasks slipped first, and did the other one get easier once it did?

Q2. Before an exam, do you work better reading in silence or explaining material aloud to someone?

Q3. How do you decide, mid-lecture, whether to keep writing or stop and listen?

Answer key

Task 1 · tally
map

10

Task 2 · crossed out
multiples of 6

12

Task 2 · counted
ending in 2

10

Task 3 · final total
two middle digits

123

Task 1 - suggested answers

Q1. A line of constant compass bearing appears as a straight line, so a course could be drawn on the chart and steered directly.

Q2. East-west distances stretch towards the poles, so north-south distances must stretch to match, which inflates area.

Q3. Each uses a different projection, and the choice of what to preserve changes which places look large or important.

Q4. Only partly: the distortion came from a navigational need, not colonial intent, though a map does carry claims about importance.

Notes for the parent or teacher

- Mark the two tasks separately. A student who scores well on the main task and loses the count has not failed - that is the normal pattern, and it is the thing worth discussing.
- Do not prompt or remind during a task. The reminder is the skill.
- An untimed run is a valid run. Record the time only if the student wants to beat it next week.
- Repeat the sheet after a week rather than straight away. Spacing is what makes the gain stick.
- This is attention practice, not an assessment. It does not diagnose anything, and no sheet of this kind should be read as a measure of ability.