

Transport scheduler: study guide

Rail, transit, road transport, maritime, and logistics · suite apt-091-transport-scheduler · generated 2026-09-15T15:42:02.900Z

Detail	Value
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Private practice result. Not an official exam certificate, employer decision, hiring signal, admissions decision, or guaranteed outcome. Scores stay on this device unless you export them.

Answer keys and scoring logic stay server-side and are never included in any download or export.

How to use this guide

This file contains the whole study outline for this suite: every skill it draws on, the full lesson for each of those skills, worked examples, practice tips, a glossary, and where each piece of material comes from. Nothing here is a summary of a page you still have to visit.

1. Read the skills section end to end once, without timing yourself.
2. Work the guided practice mode for the suite, using the practice tips as a checklist.
3. Move to the mini-test only when guided practice feels unhurried.
4. Sit the full simulation last, once, in the conditions you expect on the day.

Practice attempts are stored on the device you used, never on an account. Exporting a result is the only way anything leaves that device.

Practice modes and durations

Practice modes for Transport scheduler

Mode	Duration	What it is for
Guided practice	15 minutes	Untimed, with feedback after every item.
Mini-test	18 minutes	A short timed set for checking pace.
Full simulation	45 minutes	Full length and full time, in one sitting.

- Start guided practice:
<https://learn.novusstreamsolutions.com/aptitude/practice/new?bank=apt-091-transport-scheduler&mode=guided>
- Start mini-test:
<https://learn.novusstreamsolutions.com/aptitude/practice/new?bank=apt-091-transport-scheduler&mode=mini>
- Start full simulation:
<https://learn.novusstreamsolutions.com/aptitude/practice/new?bank=apt-091-transport-scheduler&mode=full>

Skills covered, in full

This suite draws on 5 skill constructs. Each one below carries its complete lesson.

Planning and scheduling exercises

Resources, dependencies, deadlines, constraints, and contingency planning.

Learn to build a feasible schedule from dependencies, resource limits, deadlines, and uncertainty. A strong plan makes the critical sequence visible and includes triggers for replanning.

What you should be able to do after this lesson:

1. Convert a task list into durations, predecessors, resource needs, milestones, and constraints.
2. Identify the chain of dependent tasks most likely to control the finish date.
3. Add proportionate buffers, checkpoints, and contingencies without hiding an impossible deadline.

Worked examples and pitfalls

Worked scenario: a four-hour shutdown: Inspection takes 30 minutes before either repair can start. Two repairs take 90 and 120 minutes, but both need the same technician; testing takes 45 minutes after both finish. The minimum sequence is $30 + 90 + 120 + 45 = 285$ minutes, longer than the shutdown. The correct response is to surface the conflict and change scope, staffing, or window, not to place overlapping bars on a chart and call the plan feasible.

Dependency and contingency check: Draw arrows between tasks, then mark scarce resources and approval gates. For the highest-risk dependency, define an early warning and a response: for example, if a permit is not approved by noon, defer nonessential work and notify the owner rather than discovering the conflict at start time.

How to practise this skill

- Check resource conflicts as well as task order; parallel work is impossible when both tasks need the same person or asset.
- Protect the completion milestone with visible review points, not an unexplained buffer at the end.
- When a constraint makes the plan impossible, state it early and propose the smallest viable change.

Glossary

Dependency: A rule that one task or milestone must precede or enable another.

Critical path: The dependent task sequence that determines the earliest possible finish under the stated plan.

Slack: The time a task may move without delaying a dependent milestone or final completion.

Study this next

- Scheduling: <https://learn.novusstreamsolutions.com/search?q=Scheduling>
- Critical path method: <https://learn.novusstreamsolutions.com/search?q=Critical%20path%20method>
- Resource allocation: <https://learn.novusstreamsolutions.com/search?q=Resource%20allocation>
- Planning and scheduling exercises lesson on Novus Learn:
<https://learn.novusstreamsolutions.com/aptitude/skills/planning-scheduling/lesson>

Where this material comes from

- Novus Learn original scheduling, project-coordination, dispatch, and operations suite scenarios.
- Novus educational framework: tasks, durations, dependencies, resources, constraints, milestones, and contingencies.

Educational preparation only. Novus Learn does not administer official exams and does not guarantee scores or hiring outcomes.

Numerical reasoning

Arithmetic, fractions, percentages, ratios, rates, estimation, word problems, and number relationships.

Numerical reasoning is the ability to take a small set of supplied numbers (a price list, a staffing table, a fuel figure), and reach a defensible answer in around ninety seconds without a formula sheet. It is the most widely used quantitative section in graduate, management and public-sector screening, and it appears in banking, retail, armed forces and healthcare entry batteries alike. The arithmetic itself is deliberately ordinary: percentages, ratios, rates and averages. What is actually being measured is whether you pick the right operation quickly, keep the units straight, and answer the question that was asked rather than the one you started computing. Practice here is device-local: no account, and nothing leaves this device unless you export it.

What you should be able to do after this lesson:

1. Move between fractions, decimals, percentages and ratios on sight, and pick whichever form makes a given item fastest (12.5 percent as one eighth, 33.3 percent as one third).
2. Apply percentage change in both directions, including recovering an original figure from a post-increase total, and combine successive changes multiplicatively rather than by adding them.
3. Split a total in a stated ratio by counting parts first, and work backwards from a stated difference between two shares.
4. Solve rate problems (speed, unit price, consumption, combined work rates) by carrying units through every intermediate line so the units of the answer prove the method.
5. Produce a one-significant-figure estimate before computing, and use it to eliminate the distractors built from the common wrong operations.
6. Read a multi-step stem and name, in one sentence, the single quantity the final question asks for before touching the numbers.

Worked examples and pitfalls

Reverse percentages: the item most candidates get backwards: A subscription price rose by 15 percent and now stands at 57.50 pounds. What was it before? The correct move is to divide, not subtract: the new price is 115 percent of the old, so the old price is $57.50 / 1.15 = 50.00$. Check it forwards: 15 percent of 50 is 7.50, and $50 + 7.50 = 57.50$. The tempting wrong answer takes 15 percent of the NEW figure, $0.15 \times 57.50 = 8.625$, and reports 48.88. That distractor is always on the option list because it is what most people do under time pressure, and it is wrong by 2.25 percent, small enough to look plausible. The same asymmetry drives the successive-change item: a price that rises 20 percent and then falls 20 percent does not return to where it started. Multiply the factors: $1.20 \times 0.80 = 0.96$, a net fall of 4 percent. Starting at 500 pounds you get 600 then 480, not 500. Percentages compose by multiplication; they never add.

Ratio splits: count the parts before you divide: A 4,830 pound budget is split between three teams in the ratio 3:5:6. Add the parts first: $3 + 5 + 6 = 14$. One part is $4,830 / 14 = 345$. The shares are $3 \times 345 = 1,035$, $5 \times 345 = 1,725$ and $6 \times 345 = 2,070$, and they sum back to 4,830, which is the check you should always run. Two classic failures. The first is dividing by 3 because there are three teams. That gives 1,610 each and ignores the ratio entirely. The second is treating 5 as a fraction and computing five sixths or five fourteenths

of something other than the total. The more interesting version of this item gives you a difference instead of the total: 'the second team receives 690 pounds more than the first, what is the whole budget?' The difference between the shares is $5 - 3 = 2$ parts, so one part is $690 / 2 = 345$, and the budget is $14 \times 345 = 4,830$. Same number, reached from the other end, and the arithmetic is trivial once you have made the parts explicit.

Rates and units: 2 h 15 min is 2.25, not 2.15: A delivery van covers 174 km in 2 hours 15 minutes. Average speed is distance over time, and the time must be in hours: 15 minutes is $15/60 = 0.25$ h, so $174 / 2.25 = 77.3$ km/h. Type 2.15 into the calculator instead and you get 80.9 km/h: an error of roughly 4.7 percent that sits comfortably inside the plausible range and will match one of the options. Now extend it. The van consumes 8.6 litres per 100 km, so the trip needs $174 \times 8.6 / 100 = 14.964$ litres, and at 1.48 pounds per litre that is $14.964 \times 1.48 = 22.15$ pounds. Notice the units doing the work: (km) $\times$ (L / 100 km) leaves litres; (L) $\times$ (pounds / L) leaves pounds. If your intermediate line has km still attached at the end, you have divided when you should have multiplied. Write the unit next to every number and the method checks itself.

Unit pricing: normalise before you compare: Three pack sizes of the same fluid. Pack A: 750 ml for 3.60 pounds. Pack B: 2 litres for 9.40. Pack C: 1.5 litres for 7.20. Convert all three to price per litre. A: $3.60 / 0.75 = 4.80$ per litre. B: $9.40 / 2 = 4.70$. C: $7.20 / 1.5 = 4.80$. So B is cheapest by 10p a litre, and A and C are identical despite looking like different deals. The 'bigger pack is cheaper' heuristic happens to hold here but is not a rule, and test writers know it. Half of these items are built specifically so the largest pack loses. Now add the multibuy that these questions love: pack A is on three-for-two. Three packs give 2.25 litres for the price of two, 7.20 pounds, which is $7.20 / 2.25 = 3.20$ per litre and beats everything. The trap in the multibuy version is dividing by the number of packs paid for rather than the volume received.

Combined work rates: add rates, never times: Printer A completes a 3,000-page run in 50 minutes; printer B completes the same run in 75 minutes. Running together, how long? Convert to rates: A prints $3,000 / 50 = 60$ pages per minute, B prints $3,000 / 75 = 40$ pages per minute, and together they print 100 pages per minute, so the job takes $3,000 / 100 = 30$ minutes. Verify by counting output: in 30 minutes A produces 1,800 pages and B produces 1,200, which is 3,000 exactly. The two wrong answers you will see on the option list are 62.5 minutes (the average of 50 and 75) and 125 minutes (the sum). Both are impossible on inspection: two machines working together must finish faster than the faster machine alone, so any answer above 50 minutes is wrong before you compute anything. The general form is $1 / (1/50 + 1/75)$, and it is worth being able to write that line directly, but the sanity bound catches the error faster than the algebra does.

Estimate first, then compute: killing distractors in ten seconds: 'A department spent 847,300 pounds in 2024. In 2025 the budget fell by 12.5 percent. What was the 2025 spend?' Options: 741,387.50 / 953,212.50 / 105,912.50 / 762,570. Estimate before anything else: 12.5 percent is exactly one eighth, one eighth of roughly 850,000 is roughly 106,000, so the answer is roughly 744,000. That single line eliminates three options. 953,212.50 applied the change upwards. 105,912.50 is the size of the reduction, not the resulting spend: the 'answered the wrong question' distractor, and the most commonly selected wrong option on items of this shape. 762,570 is a 10 percent cut, planted for anyone who misread the rate. Exact working: $847,300 \times 7/8 = 5,931,100 / 8 = 741,387.50$. Doing it as a fraction avoids the decimal multiplication altogether. Learn the fraction equivalents cold (12.5 percent is $1/8$, 16.7 percent is $1/6$, 37.5 percent is $3/8$, 62.5 percent is $5/8$) because a fraction turns most percentage items into one division.

How to practise this skill

- Memorise the fraction-to-percentage table up to eighths and twelfths. Almost every 'nasty' percentage on these tests is a clean fraction in disguise, and the fraction route is two or three times faster than decimal multiplication.
- Write the unit beside every intermediate number, including the ones you keep in your head. Most numerical errors on timed sections are unit errors, not arithmetic errors, and units are the only cheap way to catch them.

- Rehearse reverse percentages as their own drill until dividing by 1.15 feels more natural than subtracting 15 percent. It is a single, identifiable technique that accounts for a disproportionate share of lost marks.
- Before selecting, re-read the last clause of the stem out loud. 'By how much did it fall' and 'what was it after the fall' have different answers, and both are always on the option list.
- Keep an error log with four columns (misread the question, wrong operation, unit slip, arithmetic slip), and tally which one you actually commit. Three sessions is usually enough to show that one column dominates, and that is the column to train.
- Work untimed until your method is stable, then add the clock in stages: generous, then realistic, then 20 percent tighter than the real test. Attempts stay on this device, so a slow first pass costs nothing.

Glossary

Percentage point: The arithmetic difference between two percentages. A rate moving from 4 percent to 5 percent rises by one percentage point but by 25 percent in relative terms; questions specify which they want and the two answers are both on the option list.

Reverse percentage: Recovering an original amount from a figure that already includes a percentage change, by dividing by the multiplier (1.15 for a 15 percent rise, 0.88 for a 12 percent fall) rather than subtracting the percentage from the new figure.

Multiplier (decimal factor): The single number a quantity is multiplied by to apply a percentage change: 1.20 for plus 20 percent, 0.80 for minus 20 percent. Successive changes are handled by multiplying the factors, which is why plus 20 then minus 20 gives 0.96, not 1.

Ratio part: One unit of a ratio split. Dividing the total by the sum of the ratio terms gives the value of one part; every share and every difference between shares is then a whole number of parts.

Unit rate: A quantity expressed per one of something: price per litre, pages per minute, litres per 100 km. Comparisons are only valid once every option has been converted to the same unit rate.

Combined rate: The sum of two or more individual rates working simultaneously. Times cannot be added or averaged; only rates add, and the combined time is the total work divided by the combined rate.

Significant figure estimate: Rounding every input to one meaningful digit to get an approximate answer in a few seconds. Its purpose is not accuracy but elimination: it removes any option that is off by a factor or has the sign of the change wrong.

Distractor: A wrong option written deliberately to match a specific predictable error: subtracting instead of dividing, reporting the change instead of the result, averaging instead of combining rates. Recognising the pattern is often faster than recomputing.

Study this next

- Numerical reasoning skill hub: <https://learn.novusstreamsolutions.com/aptitude/skills/numerical-reasoning>
- Numerical reasoning practice in the Cognitive Skills Lab:
<https://learn.novusstreamsolutions.com/cognitive-skills/numerical-reasoning>
- Data interpretation lesson:
<https://learn.novusstreamsolutions.com/aptitude/skills/data-interpretation/lesson>
- Office numeracy suite: <https://learn.novusstreamsolutions.com/aptitude/tests/office-numeracy>
- Finance, accounting and insurance careers:
<https://learn.novusstreamsolutions.com/careers/families/finance-accounting-and-insurance>
- Numerical reasoning lesson on Novus Learn:
<https://learn.novusstreamsolutions.com/aptitude/skills/numerical-reasoning/lesson>

Where this material comes from

- All worked figures above were written and checked for Novus Learn. Every division, ratio split and rate calculation in this lesson was verified by recomputing it in the reverse direction.
- Conventions only (percentage point, unit rate, significant figures) cross-checked against standard public references such as the Wikipedia articles 'Percentage', 'Ratio' and 'Rate (mathematics)'. No item text is drawn from any published test.
- Novus Learn aptitude construct registry (catalog seed) for construct scope and suite mapping.
- Public educational framing only: not affiliated with any official exam board, publisher or employer, and no copyrighted test item is reproduced.

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Map and route reasoning

Directions, coordinates, schedules, routes, and navigation constraints.

Map and route reasoning is spatial thinking with a clock attached: bearings and turns, map scale, grid references, and the journey-time arithmetic that decides whether a route is feasible at all. It appears in police, fire and ambulance selection, driver and dispatch testing, military navigation batteries, and any logistics or field-service role where a wrong turn is a missed window. The items are rarely hard mathematically; they are lost by rotating the map instead of the number, by averaging two speeds, or by adding a walking leg to the wrong end of a connection. Your practice attempts are stored on this device and go nowhere unless you export them.

What you should be able to do after this lesson:

1. Convert any facing into degrees clockwise from north, apply a sequence of left and right turns arithmetically, and convert the result back to a compass point.
2. Compute a back bearing and use it to check that an out-and-return leg is consistent.
3. Convert map distance to ground distance from a ratio scale such as 1:25,000, and say why the ratio has no units.
4. Give and read four-figure and six-figure grid references in the correct order, and state which square or point a reference identifies.
5. Compute door-to-door journey time from distance, average speed and fixed stops, and work backwards from a fixed deadline to a latest departure.
6. Compare candidate routes against stated constraints and identify which constraint actually binds on the vehicle, the load or the time window.

Worked examples and pitfalls

Bearings: turn the number, not the map: You are facing north. Turn 90 degrees right and you face 090, east. Turn a further 135 degrees right: $90 + 135 = 225$, south-west. Now turn 90 degrees left: $225 - 90 = 135$, south-east. The method that survives any number of turns is to hold the facing as a number of degrees clockwise from north, add for right turns, subtract for left turns, take the result modulo 360, and convert back at the end using the eight-point table: 0 north, 45 north-east, 90 east, 135 south-east, 180 south, 225 south-west, 270 west, 315 north-west. Candidates who instead picture themselves rotating lose the left-right convention the moment they are facing south, because on the mental image left now appears on the right of the page. The companion idea is the back bearing: the reverse of a leg is the forward bearing plus or minus 180 degrees, so a leg travelled out on 040 comes home on 220, and a leg out on 250 comes home on 070. Checking that every outbound and return pair differs by exactly 180 catches a dropped turn immediately.

Scale: from the sheet to the ground: On a 1:25,000 sheet, one centimetre of paper represents 25,000

centimetres of ground, which is 250 metres. A path measured at 6.4 cm is therefore $6.4 \times 250 = 1,600$ m, or 1.6 km. Move to a 1:50,000 sheet and the same 6.4 cm becomes 3.2 km, because each centimetre now stands for 500 m. Two mistakes recur. The first is dividing rather than multiplying, which turns a 1.6 km walk into a 26 m one and should be caught instantly by asking whether the answer is plausible for a footpath. The second is forgetting that a ratio scale carries no units: 1:25,000 means one inch to 25,000 inches just as much as one centimetre to 25,000 centimetres, which is exactly why the printed scale bar is safer than a ruler when a sheet mixes conventions. Finally, map distance is horizontal distance. A route that climbs 300 m over that 1.6 km is meaningfully longer and much slower on foot, which is why walking-time estimates add time for ascent separately rather than inflating the distance.

Grid references: along the corridor, then up the stairs: On a numbered map grid, the four-figure reference 3572 means easting 35 and northing 72. It identifies a whole one-kilometre square, and specifically the square whose south-west corner sits at that intersection: not its centre. To locate a point inside it, divide the square into tenths in each direction: a feature five tenths east and five tenths north of that corner is 355725 in six figures, which pins the position to roughly 100 m. The two failures are reliable enough to be worth naming. The first is giving northings before eastings, so 7235 gets quoted for a feature that is actually at 3572, pointing at an entirely different square or at nothing at all. The second is treating the reference as the centre of the square, which shifts every reported position by half a kilometre to the north-east. The mnemonic that fixes both is 'along the corridor, then up the stairs': you walk along before you go up, and eastings always come first.

Journey time with a stop, and the average-speed trap: A van covers 84 km at an average 56 km/h. Driving time is $84/56 = 1.5$ hours, or 90 minutes. Add a 20-minute unload part way and the door-to-door time is 110 minutes, so a 08:20 departure arrives at 10:10. If the receiving bay closes at 10:00, the total budget is only 100 minutes; with the 20-minute stop unavoidable, driving must fit into 80 minutes, and the required average becomes $84 / (80/60) = 63$ km/h. That is the shape of most feasibility items: find the fixed time, subtract the fixed stops, and solve for what is left. The trap sits in the word average. Suppose the same 84 km is driven as 42 km at 70 km/h and 42 km at 50 km/h. The mean of the two speeds is 60 km/h, and that is the wrong answer. Add the times instead: $42/70 = 0.60$ h and $42/50 = 0.84$ h, total 1.44 h, so the true average is $84/1.44 = 58.3$ km/h. Average speed is always total distance over total time, never the mean of the speeds.

Routing under constraints: find the one that binds: Depot to site, three options. Route A is 18 km and crosses a bridge posted at 7.5 tonnes. Route B is 14 km but the final 300 m is one-way against you, forcing a 1.2 km loop, so it is really 15.2 km. Route C is 16 km and includes 800 m of school zone limited to 20 km/h between 08:00 and 09:00, where you would otherwise do 40 km/h. Your loaded van weighs 3.5 tonnes and you leave at 08:30. Price the constraints. The bridge limit does not bind at all: 3.5 tonnes is well under 7.5, so route A's restriction costs nothing and A is simply the longest at 18 km. The school zone does bind, but barely: 0.8 km at 20 km/h takes 2.4 minutes against 1.2 minutes at 40, a penalty of 1.2 minutes, leaving C at 16 km plus about a minute. Route B, at 15.2 km including its loop, is still the shortest. The trap is choosing A because it is the option with no restriction that applies, a constraint that does not bind is not a cost, and noticing that is precisely what the item measures.

Timetables: work backwards from the fixed event: Buses leave the depot at five and thirty-five minutes past each hour. The ride to the station takes 25 minutes, then a 6-minute walk to the platform. Trains depart at 09:12, 09:42 and 10:12. To catch the 09:42, you must be on the platform by 09:42, so the latest boarding time is 09:42 minus 25 minus 6 = 09:11. The 09:05 bus qualifies: it reaches the station at 09:30 and the platform at 09:36, six minutes clear. The 08:35 bus is on the platform at 09:06 and would also make the 09:12 with a little to spare. The 09:35 bus reaches the platform at 10:06 and can only make the 10:12. The two errors that cost marks are subtracting the walking time from the wrong end (adding it to the train departure instead of the bus arrival, which manufactures twelve minutes of slack that does not exist), and reading a timetable's arrival column as though it were the connection's departure. Fix the deadline first, list every fixed time in one column, then choose.

How to practise this skill

- Convert every facing to degrees clockwise from north before you do anything else. Arithmetic on a number survives a question that turns you round four times; mental rotation does not.
- Never rotate the paper. Rotating the map reverses your left and right the instant the route heads south, and that single habit accounts for a large share of lost bearing marks.
- Write the scale conversion once at the top of the page, '1 cm = 250 m', and reuse it for the whole set. Recomputing it per item is where factor-of-ten errors are born.
- For timetable items, work backwards from the fixed deadline and write every fixed time in a single column before you look at the options. Forward-adding invites you to forget the walk or the changeover.
- Never average two speeds. Add the times, then divide total distance by total time. The arithmetic mean of the speeds is almost always one of the offered answers, and it is there deliberately.
- When a route question lists a restriction, ask explicitly whether it binds on this vehicle, this load and this departure time. Practise untimed until spotting a non-binding constraint is automatic; attempts stay on this device, so repetition costs nothing.

Glossary

Bearing: A direction given as degrees measured clockwise from north, conventionally written with three digits so that east is 090 and south-west is 225.

Back bearing: The bearing of the return leg, equal to the forward bearing plus 180 degrees if it is under 180, or minus 180 if it is over. A leg out on 040 returns on 220.

Ratio scale: A unitless map scale such as 1:25,000, meaning one unit measured on the sheet represents 25,000 of the same units on the ground, whatever unit you choose.

Easting and northing: The horizontal and vertical grid coordinates of a position. Eastings are always quoted first, which is what the 'along the corridor, then up the stairs' mnemonic encodes.

Six-figure grid reference: A four-figure square reference refined by tenths in each direction, locating a point to roughly 100 m rather than to a one-kilometre square.

Dead reckoning: Fixing a position from a known starting point plus the recorded headings, speeds and elapsed times, without any external fix to correct the accumulated error.

Average speed: Total distance divided by total elapsed time. When a question asks door to door, the elapsed time includes every stop, not only the time in motion.

Contour interval: The fixed height difference between adjacent contour lines. Tightly spaced contours mean steep ground, and therefore a journey time longer than the flat map distance suggests.

Connection time: The interval between an arrival and the next scheduled departure, including any walk or transfer. It is the constraint that actually decides most timetable items.

Study this next

- Cognitive Skills Lab: map and route practice:
<https://learn.novusstreamsolutions.com/cognitive-skills/map-route-reasoning>
- Map and route reasoning skill hub:
<https://learn.novusstreamsolutions.com/aptitude/skills/map-route-reasoning>
- Route and timetable reasoning suite:
<https://learn.novusstreamsolutions.com/aptitude/tests/route-and-timetable-reasoning>
- Supply chain, transport and logistics careers:
<https://learn.novusstreamsolutions.com/careers/families/supply-chain-transport-and-logistics>
- Spatial reasoning lesson: <https://learn.novusstreamsolutions.com/aptitude/skills/spatial-reasoning/lesson>
- Map and route reasoning lesson on Novus Learn:

Where this material comes from

- Navigation and scheduling examples computed for Novus Learn from first principles: clockwise bearing arithmetic, ratio-scale conversion, grid-reference convention, and distance-speed-time with fixed stops.
- Terminology checked against the public Wikipedia articles 'Bearing (navigation)', 'Scale (map)', 'Ordnance Survey National Grid' and 'Dead reckoning'. Definitions only; every route, timetable and figure above is original.
- Novus Learn aptitude construct registry (catalog seed) for the construct scope and related suite mapping.
- Public educational framing only: not affiliated with any official exam board, publisher or employer, and no copyrighted map extract or timetable is reproduced.

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Situational judgment

Evaluating workplace responses against role-relevant principles.

Learn a repeatable way to compare workplace responses: establish the facts, identify duties and risks, respect role boundaries, then choose a proportionate first action. This is educational preparation, not an official scoring guide.

What you should be able to do after this lesson:

1. Separate facts stated in a scenario from assumptions that the scenario does not support.
2. Rank response options by immediate risk, policy or role obligations, proportionality, and follow-through.
3. Explain why a strong first action is better than passive, punitive, or unauthorized alternatives.

Worked examples and pitfalls

Worked scenario: an unverified safety concern: A colleague reports a possible equipment fault while a deadline is approaching. First distinguish the known fact, the report, from the unverified cause. A strong response protects people and affected work, checks the concern through the right channel, tells the relevant lead, and records what was done. Ignoring the report underreacts; shutting down unrelated work or accusing someone before checking the facts overreacts.

Method: facts, duties, risks, response: Write four short notes before ranking options: what is known, who may be affected, which duty or boundary applies, and what safe next step is available now. Prefer an action that addresses the immediate issue and creates useful follow-through. Do not reward an option merely because it sounds decisive.

How to practise this skill

- Answer the question asked: best first action, worst action, or complete response are different tasks.
- Check whether an option acts within the person's authority and escalates only as far as the risk requires.
- When two options look reasonable, prefer the one that gathers missing facts and communicates ownership.

Glossary

Proportionality: Matching the urgency and scope of a response to the evidence, likely impact, and authority available.

Role boundary: The limit of what a person may decide or do without approval, specialist help, or escalation.

Follow-through: Confirming ownership, recording the decision, and checking that the issue was actually resolved.

Study this next

- Situational judgement test:
<https://learn.novusstreamsolutions.com/search?q=Situational%20judgement%20test>
- Workplace ethics: <https://learn.novusstreamsolutions.com/search?q=Workplace%20ethics>
- Decision-making: <https://learn.novusstreamsolutions.com/search?q=Decision-making>
- Situational judgment lesson on Novus Learn:
<https://learn.novusstreamsolutions.com/aptitude/skills/situational-judgement/lesson>

Where this material comes from

- Novus Learn original situational-judgment suite scenarios and published construct mapping.
- Novus educational framework: facts, duties, risks, role boundaries, proportional action, and follow-through.

Educational preparation only. Novus Learn does not administer official exams and does not guarantee scores or hiring outcomes.

Data checking and clerical accuracy

Matching, filing, coding, record checking, and identifying discrepancies.

Clerical accuracy is the ability to handle a large volume of records correctly and consistently: filing them in the right order, coding them against a key, spotting duplicates that do not look like duplicates, and holding that standard on the two-hundredth record as well as the second. Where error detection asks whether two things match, clerical accuracy asks whether you can apply a rule reliably at volume. It is assessed in administrative, records, clinical admin, school office, evidence-handling and insurance operations selection, and it is exactly the skill an employer is buying when they hire for a data-heavy back-office role. Practice stays on this device; there is no account and nothing is uploaded unless you export it.

What you should be able to do after this lesson:

1. Apply an alphabetical filing rule consistently, and state whether a given system files letter-by-letter or word-by-word. The two produce different, equally correct orders.
2. Sort alphanumeric references correctly under both string ordering and natural numeric ordering, and explain why record systems zero-pad.
3. Code records against a written key, handling every boundary condition (under, up to, and over, inclusive ranges) exactly as written rather than as intuited.
4. Identify duplicate records that differ only in formatting (case, whitespace, date order, punctuation inside a reference), and route genuinely ambiguous ones to exceptions instead of resolving them by guess.
5. Measure your own accuracy decay across a long batch and use the measurement to set a realistic attempt rate.
6. Convert a stated scoring rule into a target items-per-minute figure, and show why the optimum rate moves when the penalty multiplier changes.

Worked examples and pitfalls

Word-by-word or letter-by-letter: two correct answers, one rule: File these four names: Van Dyke, Vandenberg, Van Horn, Vance. Under word-by-word filing, each space-separated unit is compared in turn

and 'nothing files before something', so the first unit 'Van' sorts ahead of both 'Vance' and 'Vandenberg'. The order is Van Dyke, Van Horn, Vance, Vandenberg. Under letter-by-letter filing, spaces are ignored entirely, so the keys are VANCE, VANDENBERG, VANDYKE, VANHORN, and the order is Vance, Vandenberg, Van Dyke, Van Horn. Both orders are correct filing; only one is correct for the system you are working in. Test items state the convention in the instructions, and the candidates who lose marks are almost always the ones applying whichever convention their previous employer used. The same fork appears with prefixes and punctuation: whether Mc and Mac interfile, whether St is treated as Saint, whether a hyphen counts as a space. Read the rule, restate it to yourself in one sentence, then apply it mechanically and do not let a name that 'obviously' belongs somewhere override it.

Alphanumeric codes: A-102 at the front or the back of the drawer: Sort the references A-7, A-12, A-70, A-102, B-3. Under natural numeric ordering, the way a person reads them, the answer is A-7, A-12, A-70, A-102, B-3. Under plain string ordering, the way most software sorts by default, each character is compared in turn, so '1' comes before '7' and the answer is A-102, A-12, A-7, A-70, B-3, with A-102 first rather than last. Both are defensible; a filing item is testing which one the stated system uses. This is also why serious record systems zero-pad their references: rewrite the set as A-007, A-012, A-070, A-102 and the string sort and the numeric sort agree, permanently. If you are ever asked to design or clean a reference scheme, pad to a fixed width and the whole class of problem disappears. In a test, the giveaway is a set that deliberately mixes one-, two- and three-digit suffixes; that mixture exists only to separate candidates who apply the stated rule from candidates who apply the intuitive one.

Coding to a key: every mark is at a boundary: A claims routing key: under 500 pounds with no injury reported goes to CS1; under 500 with injury goes to CI2; 500 to 4,999 with no injury goes to CS3; 500 to 4,999 with injury goes to CI4; 5,000 and over goes to CE5 regardless of injury. Now code five records. R-118 at 499.99, no injury: CS1, since 499.99 is under 500. R-119 at exactly 500.00, no injury: CS3, because 'under 500' excludes 500 itself and the second band starts there. R-120 at 4,999.00 with injury: CI4, since the band is inclusive at its top. R-121 at exactly 5,000.00 with no injury: CE5, because the top band is 'and over' and its 'regardless of injury' clause overrides the injury split that governs the lower bands. R-122 at 86.40 with injury: CI2. Four of those five decisions turn on a boundary, and that is not an accident, coding items are written so that the interior cases are trivial and every discriminating mark sits on an edge. Before coding anything, underline the boundary words: under, up to, and over, between, inclusive. Then decide, once, what each one does to the endpoint, and apply that decision to every record in the batch.

Duplicates that are not textually identical: Three rows arrive in a merge. Row 1: SMITH, JANE | 07/04/1988 | AB123456C. Row 2: Smith, Jane | 1988-04-07 | AB 123456 C. Row 3: SMITH, JANE | 04/07/1988 | AB123456C. Rows 1 and 2 are the same person: normalise case, strip the spaces from the reference, and convert the ISO date and they match exactly. Row 3 is the genuinely hard one. If the file is in day/month order it is a different date of birth and possibly a different person; if that row came from a system using month/day order it is the same record again. You cannot tell from the row itself, so the correct action is to send it to the exception queue with the ambiguity noted, not to merge it and not to discard it. This is the judgement that separates competent records work from the appearance of it: the goal is not to make every row disappear, it is to make every decision defensible. In test form the item usually asks 'how many distinct individuals are represented', and the answer is often given as a range or accompanied by a 'cannot determine' option for exactly this reason.

Where accuracy actually decays on a long batch: Run a self-measurement rather than trusting a number from anyone: take 200 record pairs, split them into four blocks of 50, and log errors per block. Most people find block 1 slightly worse than block 2, a warm-up cost, and then a rise across blocks 3 and 4 as vigilance falls. The reason to measure it is that the arithmetic of small percentages is brutal at volume. Checking 200 pairs at 98 percent accuracy passes 4 bad records; at 99.5 percent it passes 1. Scale that to a realistic month of 20,000 records and the same two accuracy rates mean 400 defects against 100: a four-fold difference in downstream rework from a 1.5 point difference that would look like noise on a single test. Once

you know where your own curve turns, the intervention is cheap: a deliberate twenty-second break at that point, or splitting the batch so the hardest records fall in your strongest block. Practice sessions on this site are recorded on your own device, so building a block-by-block picture across several sessions costs nothing but the logging.

Setting an attempt rate from the scoring rule: A 120-item checking test with a 10-minute limit, scored as correct minus incorrect. Suppose practice has told you that you hold 92 percent at ten items a minute and 96 percent at seven and a half. Fast: $10 \times 10 = 100$ attempted, 92 correct and 8 wrong, score 84. Careful: $10 \times 7.5 = 75$ attempted, 72 correct and 3 wrong, score 69. Fast wins by 15. Now change the rule to correct minus three times incorrect: fast scores $92 - 24 = 68$, careful scores $72 - 9 = 63$, and the 15-point gap has shrunk to 5. Now suppose your real accuracy at ten a minute is 80 percent rather than 92. A gap most people do not discover until they measure it. Fast now gets 80 right and 20 wrong: under simple correct-minus-incorrect that is 60, already behind the careful strategy's 69, and under the triple penalty it is $80 - 60 = 20$ against 63. Same test, same person, opposite advice, and the two deciding variables are the penalty multiplier, which the instructions hand you, and your own accuracy-at-speed, which only measurement gives you. Do not pick a pace from temperament. Measure two rates in practice, write both accuracy figures down, and do this arithmetic before the test rather than during it.

How to practise this skill

- Before the first record of any batch, write the filing or coding rule at the top of the page in your own words. The single largest source of clerical error is applying a remembered rule from a previous system.
- Underline the boundary words in a coding key (under, up to, and over, inclusive), and resolve each endpoint once. Interior cases carry almost no marks; the edges carry nearly all of them.
- Normalise before you compare: mentally strip case, spaces and punctuation from references, and restate dates in one fixed order. Half of apparent duplicates are formatting, and half of apparent non-duplicates are too.
- When a record is genuinely ambiguous, mark it and move on. Time spent resolving one unresolvable row is taken from thirty rows you could have done correctly, and a guessed merge is worse than a flagged one.
- Measure your accuracy at two different speeds in practice and write both numbers down. You cannot choose an attempt rate rationally without them, and the fast rate is almost never as accurate as it feels.
- Practise on batches long enough to hit your own fatigue point, not on ten-item samples. The construct is specifically about sustained accuracy, and a ten-item drill measures the part of the curve that was never in doubt.

Glossary

Word-by-word filing: An alphabetical convention that compares space-separated units in turn, with a shorter first unit filing before a longer one. Under it, Van Horn files before Vance.

Letter-by-letter filing: An alphabetical convention that ignores spaces and punctuation entirely, comparing the run of letters. Under it, Vance files before Van Dyke.

Natural sort: Ordering that reads embedded digit runs as numbers, so A-7 precedes A-12. Contrasted with string ordering, which compares characters one at a time and puts A-102 first.

Zero padding: Writing references to a fixed width by adding leading zeros (A-007 rather than A-7) so that string ordering and numeric ordering produce the same result. The standard structural fix for alphanumeric filing errors.

Primary and secondary sort key: The field sorted on first and the field used to break ties within it. A batch sorted by site then by surname will look wrong if the two keys are applied in the opposite order.

Canonicalisation: Converting records to a single standard form (one case, no stray whitespace, one date

order, punctuation stripped from references) before any comparison, so that formatting differences stop masquerading as data differences.

Exception queue: The destination for records that cannot be resolved from the information available. Routing an ambiguous record here is a correct outcome; guessing it into a merge is not.

Boundary condition: The endpoint of a coded band, where wording such as under, up to or and over decides which side a value falls. Coding tests concentrate their discriminating items here.

Study this next

- Data checking and clerical accuracy skill hub:
<https://learn.novusstreamsolutions.com/aptitude/skills/clerical-accuracy>
- Clerical accuracy practice in the Cognitive Skills Lab:
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- Data checking and clerical accuracy lesson on Novus Learn:
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Where this material comes from

- All filing sets, reference codes, routing keys and records above were invented for this lesson. The two filing orders, the two sort orders and every score calculation in the attempt-rate example were worked through and checked by recomputation.
- Filing and sorting conventions cross-checked against standard public descriptions such as the Wikipedia articles 'Alphabetical order', 'Natural sort order' and 'Collation'. Terminology only; the examples are original.
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