Information Technology
Know the method.

GRADE 12 • 2026 • DBE/CAPS

Free starter pack

3 worked methods • 3 practice questions • explained answers

Trace inputs and outputs before coding. Use Delphi syntax for programming tasks and the database dialect required by your school. Compile, test normal and boundary cases, and save the required files.

Use this pack actively

1. Choose a method from the clickable index. Try the worked question before reading its steps.

2. Complete Your turn, then follow its answer link. Correct your first error and retry without copying.

3. Mix methods and use complete official papers to practise unfamiliar contexts and time management.

Paper 1 is BLUE; Paper 2 is PURPLE. Written labels remain useful in grayscale.

Original practice, not reproduced or predicted DBE exam questions. The fuller pack supports the R99 offer. Editorial draft: independent subject-teacher moderation is still required. Selected core methods do not replace the full syllabus, practical preparation or PAT.

Question-method index

Click a method to open it. Each practice question links to its explained answer.

Paper 1

MR-IT-01 | Trace an accumulator • p. 4

MR-IT-06 | Filter and order records • p. 5

Paper 2

MR-IT-10 | Remove a repeating detail • p. 6

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Your examination map

Paper 1 • 180 min • 150 marks

Practical solution development: Delphi programming, databases and SQL, object-oriented programming and problem solving.

Paper 2 • 180 min • 150 marks

Theory: systems, networks, data and information management, internet technologies and solution-development reasoning.

Plan time from the actual instructions

Paper 1: reserving 15 minutes leaves about 1.10 minutes per mark. Use this only as a planning guide.

Paper 2: reserving 15 minutes leaves about 1.10 minutes per mark. Use this only as a planning guide.

PAT is a separate assessment component. Use the current official PAT instructions and your teacher deadlines. This pack does not supply a completed PAT for submission.

Practical tasks require the school-approved software. Recreate or import the small accompanying practice data, perform the operation, test it and save the result. These files are teaching aids, not a full official examination data set.

What still needs practice

Extend to full supplied Delphi GUI projects, database components and parameterised queries, sorting and searching, text-file integration, complex arrays and the separate PAT.

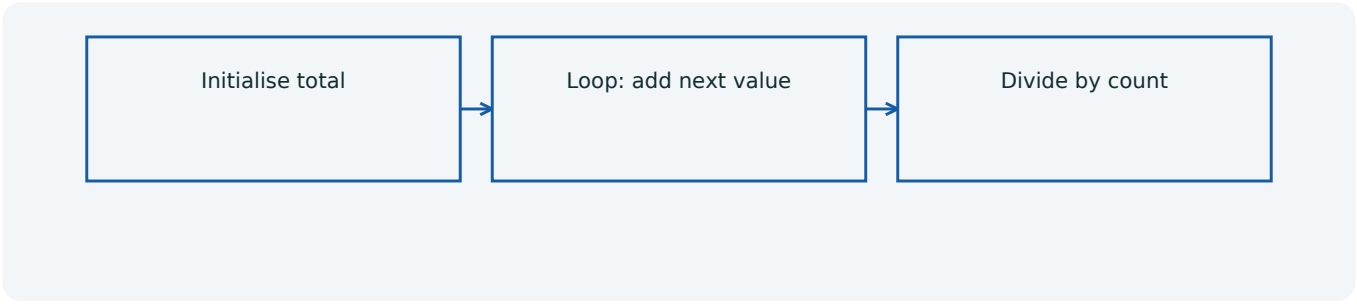
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Trace an accumulator

MR-IT-01 • Update the running total once for each item.

Worked question

Trace the Delphi-style loop below for values 4, 7 and 2. State the final total and average.



Original method sketch; schematic unless stated. Use the given values, not measurements from this image.

```
iTotal := 0;
for i := 1 to 3 do
  iTotal := iTotal + arrValues[i];
rAverage := iTotal / 3;
```

1. Start total at zero.
2. After 4, total is 4.
3. After 7, total is 11.
4. After 2, total is 13.
5. Average is $\frac{13}{3} \approx 4.33$; use real division and round only for display.

Check the reasoning

There are three additions, one per array item.

Avoid this mistake

Do not reset the total inside the loop.

Your turn

Trace the same method for 5, 5 and 8.

Click here for the explained practice answer.

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Filter and order records

MR-IT-06 • WHERE selects rows; ORDER BY controls output order.

Worked question

A Learners table has LearnerID, Name and Score. Return Name and Score for learners scoring at least 70, highest score first.

```
SELECT Name, Score
FROM Learners
WHERE Score >= 70
ORDER BY Score DESC, Name;
```

1. Select only the required fields.

2. Use Score greater than or equal to 70 in WHERE.

3. Order Score descending.

4. Add Name as a secondary sort to make tied results predictable.

Check the reasoning

A score exactly equal to 70 must be included.

Avoid this mistake

ORDER BY does not filter records.

Your turn

Return Name and Score for scores below 50, lowest first.

Click here for the explained practice answer.

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Remove a repeating detail

MR-IT-10 • Use keys to avoid repeating customer data on every order.

Worked question

Orders repeats CustomerName and CustomerPhone for every order. Explain a better two-table design.



Original method sketch; schematic unless stated. Use the given values, not measurements from this image.

1. Create Customers with CustomerID as primary key and the name and phone fields.
2. Keep Orders with OrderID as primary key and CustomerID as a foreign key.
3. One customer can relate to many orders.
4. Update a customer phone in one customer record rather than many order rows.
5. Enforce referential integrity so an order cannot reference a nonexistent customer.

Check the reasoning

This reduces update anomalies and unnecessary duplication.

Avoid this mistake

Do not use a non-unique name as a reliable primary key.

Your turn

Why should a customer phone number usually be text rather than a number used for arithmetic?

Click here for the explained practice answer.

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Trace an accumulator

MR-IT-01 • Practice answer

Trace the same method for 5, 5 and 8.

Step-by-step answer

1. Running totals 5, 10, 18.

2. Average $\frac{18}{3} = 6$.

Make the correction useful

Explain your first missed step, correct it and repeat the task without copying. For practical tasks, inspect the saved result rather than only reading the solution.

Return to the worked method

Filter and order records

MR-IT-06 • Practice answer

Return Name and Score for scores below 50, lowest first.

Step-by-step answer

1. Use WHERE Score < 50.

2. Use ascending score order and Name for ties.

```
SELECT Name, Score
FROM Learners
WHERE Score < 50
ORDER BY Score ASC, Name;
```

Make the correction useful

Explain your first missed step, correct it and repeat the task without copying. For practical tasks, inspect the saved result rather than only reading the solution.

Return to the worked method

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Remove a repeating detail

MR-IT-10 • Practice answer

Why should a customer phone number usually be text rather than a number used for arithmetic?

Step-by-step answer

1. Leading zeroes and possible symbols must be preserved.

2. No arithmetic is needed on the phone value.

3. A suitable text field supports its meaning.

Make the correction useful

Explain your first missed step, correct it and repeat the task without copying. For practical tasks, inspect the saved result rather than only reading the solution.

Return to the worked method

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Continue with official papers

Scope checked 9 October 2026. The source links support the assessment map; all worked and practice questions in this pack are newly authored.

Subject examination guideline

Updated IT CAPS content and assessment

2026 ATP retention and CAT / IT update exceptions

DBE annual teaching plans

DBE released 2026 papers and marking guidelines

Current official PAT directory

The revised CAT / IT CAPS content is used alongside the subject examination guidance. S19 of 2025 excludes CAT and IT from blanket retention of the old ATPs. Ask your teacher for the latest school implementation and software instructions.

Error log

Question ID: _____ Date: _____
First incorrect step: _____
Why it failed: _____
Correct method: _____
Retry date and result: _____

Use the matching memo, answer book and addenda for the actual paper. Questions here have no official mark allocation. Check explanations with your teacher before using these drafts as a sole revision source.

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