DeducePuzzles

Inequality reasoning questions with answers

15 exam-shaped questions with full worked solutions.

For IBPS · SBI · RRB · SSC reasoning.

Free, share it forward. Every question in this set was generated and verified by the DeducePuzzles engine — the same one behind the free daily puzzle round at **deducepuzzles.com**.

The questions

Work them on paper first. Full solutions start after question 15 — the numbering matches.

QUESTION 1

Which of the following conclusions is DEFINITELY true from the given expression?

Code: * = >, $ = >=, # = <, @ = <=, % = = Expression: F * D, D * C

A. D > F
B. F = D
C. D <= C
D. C > D
E. F > C

QUESTION 2

Which of the following conclusions is DEFINITELY true from the given expression?

Code: $ = >, % = >=, * = <, # = <=, @ = = Expression: C $ E, E $ A

A. E = C
B. E >= C
C. E = A
D. C > A
E. A > E

QUESTION 3

In the statements, the relationship between the elements is shown. Which of the conclusions is/are definitely true?

Statements: M = V > T ≤ Q > W Conclusion I: T ≤ M Conclusion II: M < T

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 4

In the statements, the symbols stand for the relations given in the code. Which of the conclusions is/are definitely true?

Code: & means >, $ means ≥, % means <, @ means ≤, # means = Statements: J @ L % M % Q & K Conclusion I: J # M Conclusion II: M @ J

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 5

In the statements, the relationship between the elements is shown. Which of the conclusions is/are definitely true?

Statements: K ≤ L ≥ S ≤ W < U Conclusion I: U ≤ L Conclusion II: L < U

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 6

In the statements, the relationship between the elements is shown. Which of the conclusions is/are definitely true?

Statements: V ≤ M ≥ L ≤ J < K; L > P > U Conclusion I: U ≥ K Conclusion II: J ≥ P

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 7

Which of the following conclusions is DEFINITELY true from the given expression?

Code: * = >, @ = >=, % = <, # = <=, $ = = Expression: F * B, B * A

A. F > A
B. A = F
C. A > B
D. B = A
E. F < B

QUESTION 8

Which of the following conclusions is DEFINITELY true from the given expression?

Code: % = >, $ = >=, @ = <, * = <=, # = = Expression: C $ E, E $ A

A. C = E
B. A >= C
C. E < A
D. E = A
E. C >= A

QUESTION 9

In the statements, the symbols stand for the relations given in the code. Which of the conclusions is/are definitely true?

Code: @ means >, $ means ≥, & means <, % means ≤, # means = Statements: L % W & S $ V % R Conclusion I: L % S Conclusion II: S @ L

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 10

In the statements, the relationship between the elements is shown. Which of the conclusions is/are definitely true?

Statements: J < P ≤ T > M < U Conclusion I: U > T Conclusion II: J ≤ T

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 11

In the statements, the symbols stand for the relations given in the code. Which of the conclusions is/are definitely true?

Code: $ means >, @ means ≥, % means <, & means ≤, # means = Statements: P & T $ L $ Q & R Conclusion I: R @ T Conclusion II: Q % T

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 12

In the statements, the relationship between the elements is shown. Which of the conclusions is/are definitely true?

Statements: T ≥ K ≤ L ≤ J ≤ P; S ≥ K ≤ Q Conclusion I: T > S Conclusion II: S ≥ T

A. Only conclusion I is true
B. Only conclusion II is true
C. Either conclusion I or II is true
D. Neither conclusion I nor II is true
E. Both conclusions I and II are true

QUESTION 13

Which of the following conclusions is DEFINITELY true from the given expression?

Code: $ = >, * = >=, % = <, @ = <=, # = = Expression: D $ F, F $ A

A. F = D
B. D > A
C. F > D
D. F = A
E. A = D

QUESTION 14

Which of the following conclusions is DEFINITELY true from the given expression?

Code: # = >, * = >=, @ = <, % = <=, $ = = Expression: F * A, A * C

A. C = A
B. F >= C
C. C < A
D. A < C
E. F <= A

QUESTION 15

Which of the following conclusions is DEFINITELY true from the given expression?

Code: @ = >, $ = >=, * = <, % = <=, # = = Expression: C @ F, F @ A, A @ D

A. D > C
B. C > D
C. C <= F
D. F = A
E. A < D

Answers and worked solutions

Each walkthrough is the engine's own elimination order, step for step — not a reconstruction written after the fact.

SOLUTION 1

Answer: **F > C**

1. First decode each symbol: * means >, $ means >=, # means <, @ means <=, % means =.
2. So the expression reads: F > D, D > C.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, F > C is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 2

Answer: **C > A**

1. First decode each symbol: $ means >, % means >=, * means <, # means <=, @ means =.
2. So the expression reads: C > E, E > A.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, C > A is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 3

Answer: **Only conclusion I is true**

1. Conclusion I (T ≤ M): the path T < V = M gives T < M, so it is definitely true.
2. Conclusion II (M < T): the path M = V > T gives M > T, so it is false.
3. So: Only conclusion I is true.

SOLUTION 4

Answer: **Neither conclusion I nor II is true**

1. Decode the symbols: & means >, $ means ≥, % means <, @ means ≤, # means =. The statements read J ≤ L < M < Q > K.
2. Conclusion I (J = M): the path J ≤ L < M gives J < M, so it is false.
3. Conclusion II (M ≤ J): the path M > L ≥ J gives M > J, so it is false.
4. So: Neither conclusion I nor II is true.

SOLUTION 5

Answer: **Either conclusion I or II is true**

1. Conclusion I (U ≤ L): the path U > W ≥ S ≤ L changes direction, so U and L cannot be compared — not definitely true.
2. Conclusion II (L < U): the path L ≥ S ≤ W < U changes direction, so L and U cannot be compared — not definitely true.
3. I and II are the only two possibilities for U and L (the path allows "≤" or "<", never both), so exactly one of them holds.
4. So: Either conclusion I or II is true.

SOLUTION 6

Answer: **Only conclusion II is true**

1. Conclusion I (U ≥ K): the path U < P < L ≤ J < K gives U < K, so it is false.
2. Conclusion II (J ≥ P): the path J ≥ L > P gives J > P, so it is definitely true.
3. So: Only conclusion II is true.

SOLUTION 7

Answer: **F > A**

1. First decode each symbol: * means >, @ means >=, % means <, # means <=, $ means =.
2. So the expression reads: F > B, B > A.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, F > A is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 8

Answer: **C >= A**

1. First decode each symbol: % means >, $ means >=, @ means <, * means <=, # means =.
2. So the expression reads: C >= E, E >= A.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, C >= A is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 9

Answer: **Both conclusions I and II are true**

1. Decode the symbols: @ means >, $ means ≥, & means <, % means ≤, # means =. The statements read L ≤ W < S ≥ V ≤ R.
2. Conclusion I (L ≤ S): the path L ≤ W < S gives L < S, so it is definitely true.
3. Conclusion II (S > L): the path S > W ≥ L gives S > L, so it is definitely true.
4. So: Both conclusions I and II are true.

SOLUTION 10

Answer: **Only conclusion II is true**

1. Conclusion I (U > T): the path U > M < T changes direction, so U and T cannot be compared — not definitely true.
2. Conclusion II (J ≤ T): the path J < P ≤ T gives J < T, so it is definitely true.
3. So: Only conclusion II is true.

SOLUTION 11

Answer: **Only conclusion II is true**

1. Decode the symbols: $ means >, @ means ≥, % means <, & means ≤, # means =. The statements read P ≤ T > L > Q ≤ R.
2. Conclusion I (R ≥ T): the path R ≥ Q < L < T changes direction, so R and T cannot be compared — not definitely true.
3. Conclusion II (Q < T): the path Q < L < T gives Q < T, so it is definitely true.
4. So: Only conclusion II is true.

SOLUTION 12

Answer: **Either conclusion I or II is true**

1. Conclusion I (T > S): the path T ≥ K ≤ S changes direction, so T and S cannot be compared — not definitely true.
2. Conclusion II (S ≥ T): the path S ≥ K ≤ T changes direction, so S and T cannot be compared — not definitely true.
3. I and II are the only two possibilities for T and S (the path allows ">" or "≥", never both), so exactly one of them holds.
4. So: Either conclusion I or II is true.

SOLUTION 13

Answer: **D > A**

1. First decode each symbol: $ means >, * means >=, % means <, @ means <=, # means =.
2. So the expression reads: D > F, F > A.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, D > A is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 14

Answer: **F >= C**

1. First decode each symbol: # means >, * means >=, @ means <, % means <=, $ means =.
2. So the expression reads: F >= A, A >= C.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, F >= C is the only option that must hold — the others are either false or can't be concluded.

SOLUTION 15

Answer: **C > D**

1. First decode each symbol: @ means >, $ means >=, * means <, % means <=, # means =.
2. So the expression reads: C > F, F > A, A > D.
3. Run the chain: "≥" combines to "≥", but a strict ">" anywhere on the path makes the result strict ">" (e.g. A ≥ B > C ⇒ A > C). "=" links both directions.
4. From the closure, C > D is the only option that must hold — the others are either false or can't be concluded.

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