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T/F

Casagrande method (logarithm of time) is better than Taylor method (square root of time) for determining the consolidation coefficient (c_v)

ANSWER: False

Both methods produce similar results

REWARD: Advance 6 squares

PUNISHMENT: Go back 3 squares

T/F

To estimate the total settlement that a landfill will generate to a soil deposit, it is necessary to calculate the time required for this deposit to reach 90% of consolidation (degree of consolidation, U) due to the load generated by that landfill

ANSWER: True

It is a convention to assume in soil mechanics that the consolidation process ends when the degree of consolidation (U) of the soil reaches 90%

REWARD: Advance 4 squares

PUNISHMENT: Stay where you are

T/F

At the end of consolidation, any increase in load applied to the soil is fully transferred to the soil skeleton.

ANSWER: True

REWARD: Advance 5 squares

PUNISHMENT: Go back 5 squares

T/F

Consolidation is the process of expelling air from soil voids

ANSWER: False

This process is known as compaction

REWARD: Advance 2 squares

PUNISHMENT: Miss your next turn

T/F

It is not possible to accelerate the soil consolidation process.

ANSWER: False

There are soil improvement techniques that aim to reduce soil consolidation time. Examples: Vertical columns of gravel, Synthetic or sand drains and pre-loading with temporary backfill or vacuum

REWARD: Advance 3 squares

PUNISHMENT: Go back 1 square

T/F

Oedometer is the equipment used to determine soil consolidation properties

ANSWER: True

REWARD: Advance 1 square

PUNISHMENT: Go back 2 squares

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T/F

Effective stress governs the soil's mechanical behaviour

ANSWER: True

REWARD: Advance 4 squares

PUNISHMENT: Go back 3 squares

T/F

Immediately after loading, any added load applied to the ground is transferred integrally to the ground skeleton

ANSWER: False

Immediately after loading, any increase in load applied to the soil is transferred entirely to the water

REWARD: Advance 5 squares

PUNISHMENT: Go back 4 squares

T/F

According to Terzaghi's theory of consolidation, water is considered incompressible

ANSWER: True

REWARD: Advance 3 squares

PUNISHMENT: Miss your next turn

T/F

Consolidation is the process of expelling water from voids in the ground.

ANSWER: True

REWARD: Advance 2 squares

PUNISHMENT: Stay where you are

T/F

The compression index (C_c) of clays is generally higher than that of sands

ANSWER: False

REWARD: Advance 6 squares

PUNISHMENT: Go back 3 squares

T/F

If the over-consolidation ratio (OCR) of a soil is 1, then the current effective vertical stress acting on the ground is also the maximum effective vertical stress ever experienced by the soil

ANSWER: True

REWARD: Advance 4 squares

PUNISHMENT: Stay where you are