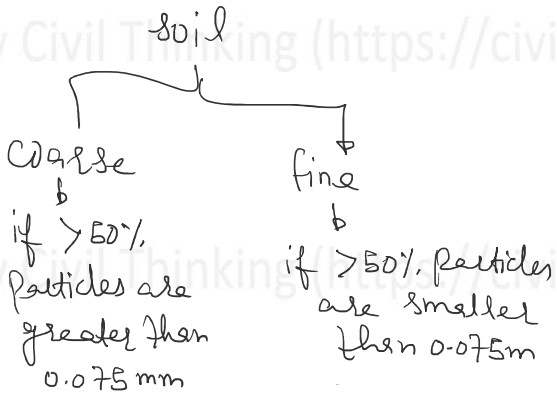
Soil Mechanics Sieve Analysis question solution

Question: A particle analysis test was conducted on a dry soil. The total mass used in test was 500 grams. All 500 grams are greater than 9.5mm. The total mass of particles greater than 0.075mm was 220 grams. Determine the percentage of coarse-grained and fine-grained soil particles.
Solution:



$$CG\,\% = \frac{\text{Mass} > 0.075\text{mm}}{\text{Total mass}} \times 100$$

$$= \frac{220}{500} \times 100 = 44\,\%. \quad \text{ANS.}$$

$$FG\,\% = \frac{\text{mass} < 0.075\text{mm}}{\text{Total mass}} \times 100$$

$$= \frac{500 - 220}{500} \times 100$$

$$= 56\,\% \quad \text{ANS.}$$

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