Midassoft programming test for backend / full stack developer.

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Instructions.

- Please submit the code in node.js or typescript language. (As defined in **“Signature”** section)
- Please submit the code as text files (.js or .ts), or github link and not as an image.
- You can assume that the input is in the correct format. No need to validate.
- The test consists of 3 questions.

Question 1: digisible

An integer is said to be "digisible" if it satisfies the following conditions:
(1) It is written with all different numbers
(2) None of the digits is zero
(3) it is divisible by each of its digits

Signature

```
function isDigisible(n:number):boolean {
        // return true if digisible, false otherwise.
}
```

Note.

You can expect input “n” to be a positive integer no greater than 10000. No need to validate the input.

Example

```
isDigisible(12) === true
```

Question 2: hand score

The goal of the coder is to know the score of the hand, either by getting three cards of the same rank (like 8s or Jacks) or the same suit (like hearts(H), clubs(C), diamonds(D) or spades(S)). The value of your hand is calculated by adding up the total of your cards in any one suit (and yes this is max value for just one of your suits). Regular cards are worth their number, face cards (J, Q, K) are worth 10, and Aces are worth 11, but remember, only one of your suits counts! You can also make a hand of three cards with the same rank, like 8-8-8 or J-J-J. This is worth 32.5 points unless it is A-A-A, which is worth 35.

Signature

```
function getHandScore(input:string):number {
        // return score
}
```

Example

S8 S10 CA
Score values for each suit:
Spades: 8+10 = 18
Clubs: 11
Hearts and Diamonds: 0
Max of 18 S, 11 C, 0 H, 0 D is 18
So the score is 18 here.
getHandScore(“S8 S10 CA”)===18

Question 3: clock angle

Given input time in hh24:mm format, calculate the shorter angle between the hour and minute hands in an analog clock.

Signature

```
function getClockAngle(hh_mm:string):number {
        // return the shorter angle between the hour and minute hands of the clock, in degree
}
```

Example

getClockAngle(“09:00”)===90
getClockAngle(“17:30”)===15