

Midassoft programming test for backend / full stack developer.

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Instructions.

- Please submit the code in typescript language. (As defined in “**Signature**” section)
- Please submit the code as text files (.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: 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

```
getHandScore("S8 S10 CA") === 18
```

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.

Question 2: 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  
}
```

Examples

```
getClockAngle("09:00") === 90
```

```
getClockAngle("17:30") === 15
```

Question 3: Remote Associates Test

There is a test that measures a person's creativity, called the "Remote Associates Test".

When you take this test, you are given 3 words/phrases and have to find a common word that goes with each of them.

Example: ROOM / SALTS / BLOOD

Answer: BATH

** This is because "bathroom", "bath salts", and "bloodbath" are all well-known words/phrases.

Your task is to create some questions for this test. You'll be given the 3 well-known words/phrases. And you'll need to tease out the question part.

Signature

```
function getQuestionPart(phrases:string[]):string[] {  
    // return array of three strings that makes a question for "Remote Associates Test".  
}
```

Note.

- All three input words/phrases are in all capital letters.
- You can assume that there is a common word among them.

Examples

```
getQuestionPart(["BATHROOM", "BATH SALTS", "BLOODBATH"]) === ["ROOM", "SALTS", "BLOOD"]
```

```
getQuestionPart(["BEFRIEND", "GIRLFRIEND", "FRIENDSHIP"]) === ["BE", "GIRL", "SHIP"]
```

