

AP[®] COMPUTER SCIENCE A 2019 SCORING GUIDELINES

Question 1: Calendar

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|-----------------|--------------------------------|-----------------|
| Part (a) | <code>numberOfLeapYears</code> | 5 points |
|-----------------|--------------------------------|-----------------|

Intent: *Return the number of leap years in a range*

- +1 Initializes a numeric variable
- +1 Loops through each necessary year in the range
- +1 Calls `isLeapYear` on some valid year in the range
- +1 Updates count based on result of calling `isLeapYear`
- +1 Returns count of leap years

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|-----------------|------------------------|-----------------|
| Part (b) | <code>dayOfWeek</code> | 4 points |
|-----------------|------------------------|-----------------|

Intent: *Return an integer representing the day of the week for a given date*

- +1 Calls `firstDayOfYear`
- +1 Calls `dayOfYear`
- +1 Calculates the value representing the day of the week
- +1 Returns the calculated value

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| Question-Specific Penalties |
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- 1 (t) Static methods called with `this`.

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Question 1: Scoring Notes

| Part (a) numberOfLeapYears | | | 5 points |
|-----------------------------------|---|---|---|
| Points | Rubric Criteria | Responses earn the point even if they... | Responses will not earn the point if they... |
| +1 | Initializes a numeric variable | | <ul style="list-style-type: none"> use the variable for loop control only |
| +1 | Loops through each necessary year in the range | | <ul style="list-style-type: none"> consider years outside the range |
| +1 | Calls isLeapYear on some valid year in the range | <ul style="list-style-type: none"> do not use a loop | |
| +1 | Updates count based on result of calling isLeapYear | <ul style="list-style-type: none"> do not use a loop do not initialize the counter | <ul style="list-style-type: none"> use result as a non-boolean |
| +1 | Returns count of leap years | <ul style="list-style-type: none"> loop from year1 to year2 incorrectly do not initialize the counter | <ul style="list-style-type: none"> do not use a loop update or initialize the counter incorrectly return early inside the loop |
| Part (b) dayOfWeek | | | 4 points |
| Points | Rubric Criteria | Responses earn the point even if they... | Responses will not earn the point if they... |
| +1 | Calls firstDayOfYear | | <ul style="list-style-type: none"> do not use the given year |
| +1 | Calls dayOfYear | | <ul style="list-style-type: none"> have arguments out of order |
| +1 | Calculates the value representing the day of the week | | <ul style="list-style-type: none"> make any error in the calculation |
| +1 | Returns the calculated value | <ul style="list-style-type: none"> return the value from calling firstDayOfYear or dayOfYear | <ul style="list-style-type: none"> return a constant value |