

Facit och kommentarer till tenta 2024-02-12 i DA2004 och DA2005

Del A: flervalsfrågor

1. *D*
2. *A, B, C, D, E*
3. *B*
4. *A*
5. *D*
6. *C*
7. *A*
8. *B*

Del B: kodfrågor

9.
 - Det saknas initiering av variabeln `integral_approximation`.
 - `y_at_x` används inte igen.
 - `y` är odefinierad

10. Exempellösning:

```
def text2morse(s):
    out = ""

    for c in s:
        if c == ' ':
            out += ' '
        else:
            out += morse[c] + ' '

    return out
```

11. Exempellösning:

```
def morse_translate(infile, outfile):
    try:
        with open(infile, "r") as infile:
            with open(outfile, "w") as outfile:
                for s in infile:
                    # s[:-1] to ignore "\n" at end of line
                    outfile.write(text2morse(s[:-1]) + "\n")
    except:
        print("Error (. .-. .-. --- .-.)")
```

12. Exempellösning

```
def intersection_with(list1, list2, f):
    out = []

    for x in list1:
        for y in list2:
            if f(x, y):
                out.append((x, y))

    return out
```

13.

A. Exempellösning:

```
def mul(self, other):  
    self.numerator *= other.numerator  
    self.denominator *= other.denominator
```

B. Exempellösning:

```
def add(self, other):  
    x1 , y1 = self.numerator , self.denominator  
    x2 , y2 = other.numerator , other.denominator  
    self.numerator = x1 * y2 + x2 * y1  
    self.denominator = y1 * y2
```