Sample exam Q: Identify exactly 3 errors in the following code, determine for each whether it is a syntax, run-time or logic error, and provide a replacement line which corrects the error.

1 fun\_sqube(num):

2 """is 'num' both the square and the cube of a natural no.?"""

3 retval = False

4 for sq in range(int):

5 if sq\*\*2 == num:

6 retval == True

7 for cb in range(num):

8 if cb\*\*3 == num:

9 return retval

10 return retval

Possible answers:

• line 1; syntax error; fun def

• line 4; run-time error; range(int) replace with range(num)

• line 6; logic error; retval == True Replace with retval = True

• line 10; logic error; return retval replace with return False

def fun\_sqube(num):

"""is 'num' both the square and the cube of a natural no.?"""

retval = False

for sq in range(num):

if sq\*\*2 == num:

retval = True

for cb in range(num):

if cb\*\*3 == num:

return retval

return False