```
class Klass:
    def __init__(self, x):
        self.xcoord = x
    def act_on(self, value):
        self.xcoord += value
k = Klass(4)
```

Which of the following best describes the code elements above

A. Klass is a class, xcoord an instance variable, act\_on a method, k an instance

B. Klass is a class, xcoord a method, act\_on an instance variable, k an instance

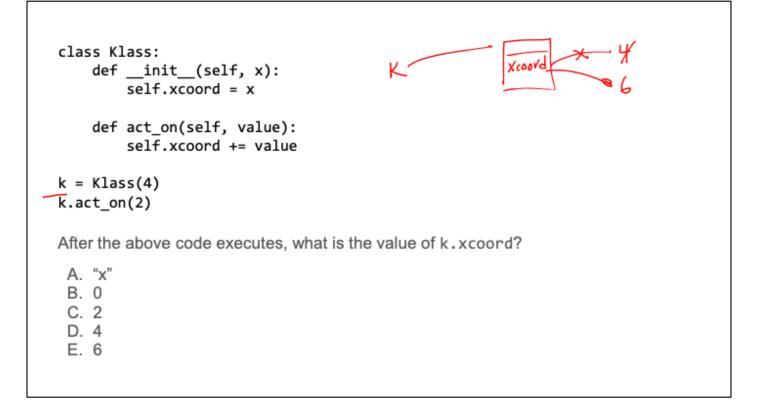
C. Klass and k are instances, xcoord an instance variable, act\_on a method

D. Klass and k are classes, xcoord an instance variable, act\_on a method

Klass is a class, xcoord and act\_on are methods, k is an instance

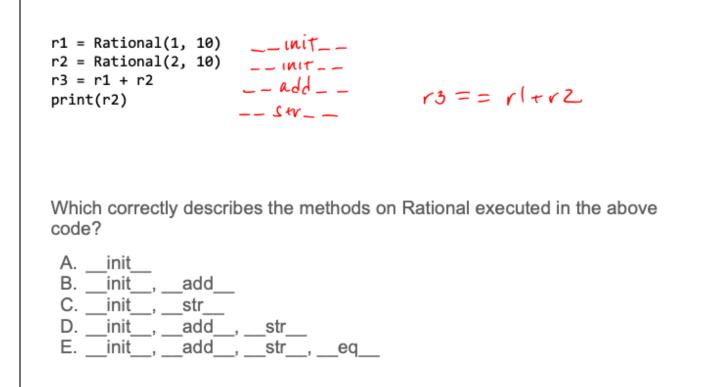
Answer: A

Klass is a class definition, xcoord is an instance variable and act\_on a method of that class, while k is an instance of that class.



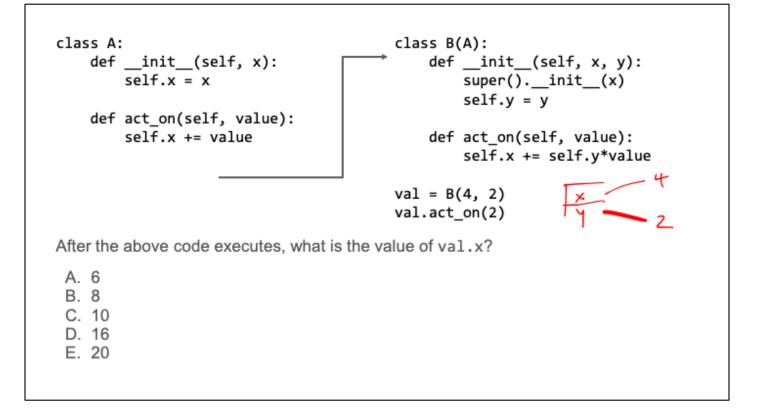
Answer: E

After initialization, the value of k.xcoord is 4. After the act\_on method, k.xcoord is incremented by 2 to a final value of 6



Answer: D

Creating the Rational objects invokes \_\_init\_\_, the + invokes \_\_add\_\_, while the print invokes \_\_str\_\_.



Answer: B

After initialization, the value of val.xcoord is 4. The act\_on method in B overrides that in A, so the final expression is 4 + 2 \* 2

d1 = Dollar(10) d2 = Dollar(20) d3 = d1 + d2	
Which correctly describes the methods executed in the above code (listed as class.method)?	
A. Dollarinit B. Rationalinit C. Dollarinit, Rationalinit D. Dollarinit, Rationalinit E. Dollarinit, Rationalinit	

Answer: D

Creating the Dollar object first invokes Dollar.\_\_init\_\_, then the initializer of the parent class Rational.\_\_init\_\_. Adding dollars reuses the \_\_add\_\_ method defined in Rational, i.e., it doesn't have its own \_\_add\_\_ method.