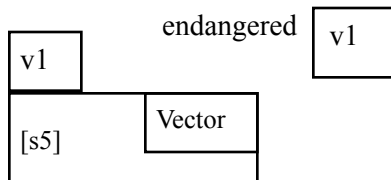
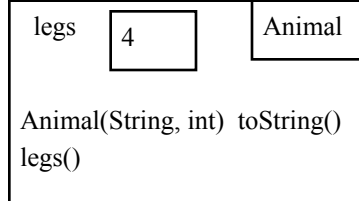
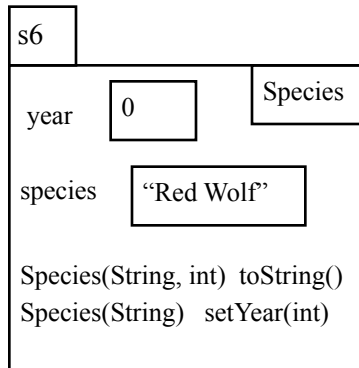
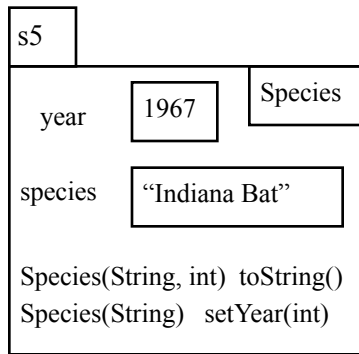


Question 1.



Question 2 Note: method specs are omitted because they are on the test itself.

```

public Species(String species, int y) {
    this.species= species;
    if (y != 0) {
        endangered.add(this);
    }
    year= y;
}

public Species(String s) {
    this(s, 0); // sadly, species= s; was also valid...
}

public void setYear(int b) {
    if (year == 0)

```

```

        endangered.add(this);
        year= b;
    }
}

```

```

public Animal(String s, int n) {
    super(s, 0); legs= n;
}

```

(one could have used **super(s)** above instead of **super(s, 0)**).

```

public int legs() {
    return legs;
}

```

```

public String toString() {
    return super.toString() +
        " with " + legs + " legs";
}

```

Question 3 (many solutions possible, 2 shown here)

```

public static String fixBlanks(String s) {
    int k= s.indexOf(" ");
    if (k == -1)
        return s;
    int h= s.lastIndexOf(" ");
    return s.substring(0,k) + " " + s.substring(h+1);
}

```

Could also have had the body

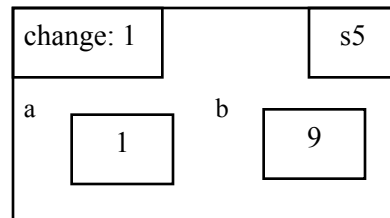
```

    int k= s.indexOf(" ");
    if (k == -1)
        return s;
    return s.substring(0,k) + " " + s.substring(k).trim();

```

Question 4

- (a) Species.endangered.size()
- (b) 1. Draw a frame for the call
2. Assign arg values to parameters
3. Execute the method body
4. Erase the frame for the call



```

(c) ( isMale() && age > 75) ||
    (!isMale() && age > 80)

```

(d) Field: declared in a class.

Static variable: declared in a class.

Parameter: declared within () of method header.

Local variable: declared in method body.