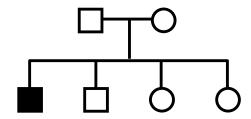
### **AP Biology**

#### **GENETICS PRACTICE 4: PEDIGREES**

### PEDIGREE #1



Could this trait be inherited as a simple...

a. autosomal recessive?

b. autosomal dominant?

c. X-linked recessive?

d. X-linked dominant?

e. Y-linked trait?

YES

**YES** 

YES

**YES** 

YES

NO

NO

NO

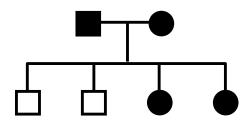
If "YES", then suggested genotypes of <u>mother</u> father

\_\_\_\_ x \_\_\_\_

\_\_X<sup>A</sup>Y\_\_ x \_\_X<sup>A</sup>X<sup>a</sup>\_\_

\_\_\_\_\_ x \_\_\_\_ \_\_\_\_\_ x \_\_\_\_

# PEDIGREE #2



Could this trait be inherited as a simple...

a. autosomal recessive?

b. autosomal dominant?

c. X-linked recessive?

d. X-linked dominant?

If "YES", then suggested genotypes of mother

\_\_\_\_\_ x \_\_\_\_

\_\_\_\_\_ x \_\_\_\_

\_\_\_\_\_ x \_\_\_\_

father

YES

YES **YES** 

NO

NO

YES

NO NO

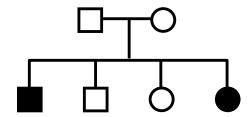
<u>X<sup>A</sup>Y</u> x <u>X<sup>A</sup>X<sup>a</sup></u>

YES

e. Y-linked trait?

1 of 2

# PEDIGREE #3



Could this trait be inherited as a simple...

If "YES", then suggested genotypes of father mother

\_\_\_\_\_ x \_\_\_\_

\_\_\_\_\_ x \_\_\_\_

\_\_\_\_\_ x \_\_\_\_

a. autosomal recessive?

b. autosomal dominant?

YES

YES

NO

NO

c. X-linked recessive?

d. X-linked dominant?

YES

NO

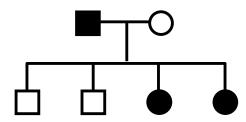
e. Y-linked trait?

YES

YES

\_\_\_\_\_ x \_\_\_\_

PEDIGREE #4



Could this trait be inherited as a simple...

If "YES", then suggested genotypes of <u>father</u>

a. autosomal recessive?



NO



- b. autosomal dominant?
- NO
- <u>aa</u> x <u>Aa</u>

- c. X-linked recessive?
- NO
- \_\_X<sup>a</sup>Y\_\_\_ x \_\_X<sup>A</sup>X<sup>a</sup>\_\_

<u> Aa</u> x <u>aa</u>

d. X-linked dominant?

- NO
- \_\_\_\_\_ x \_\_\_\_

<u>X<sup>A</sup>Y</u> x <u>X<sup>a</sup>X<sup>a</sup></u>

e. Y-linked trait?

- YES
- NO