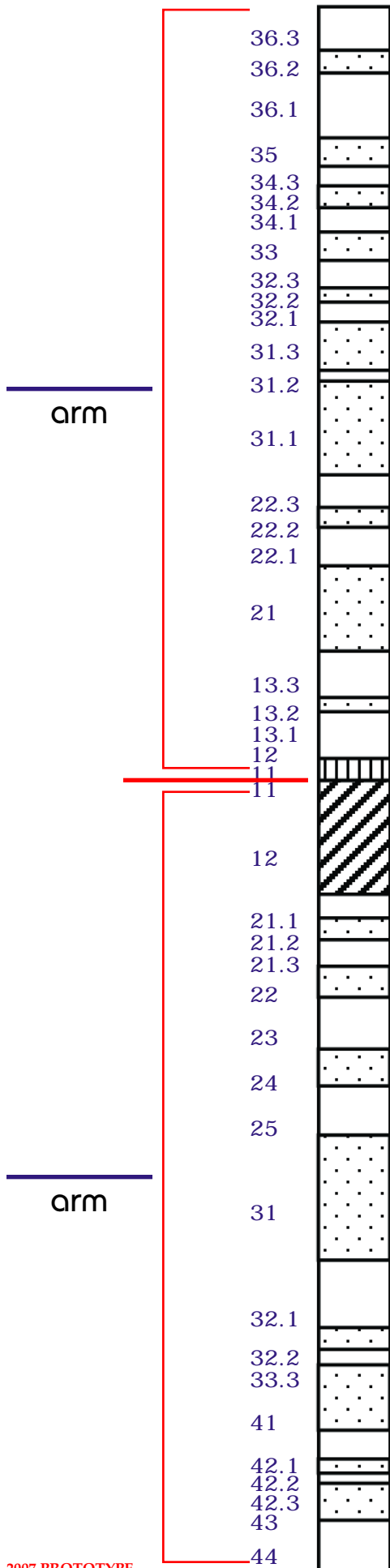
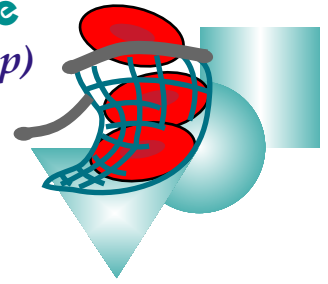


Chromosome Pattern Page

(1 copy for each student in group)

CHROMOSOME 1



Genes Found on This Chromosome

Trait	Gene Location
Rheumatoid arthritis	1q31 and 1p36
High blood pressure	1p36.1, q42-q43
High cholesterol (familial)	1p36; 1q21-q23
Insulin dependent diabetes	1p13
Migraines (familial)	1q21-q23
Narcolepsy	1q21
Taste receptor	1p36.31
Rh blood type	1p36.2
Brown hair color	1q13.11

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

Width X 10 = _____

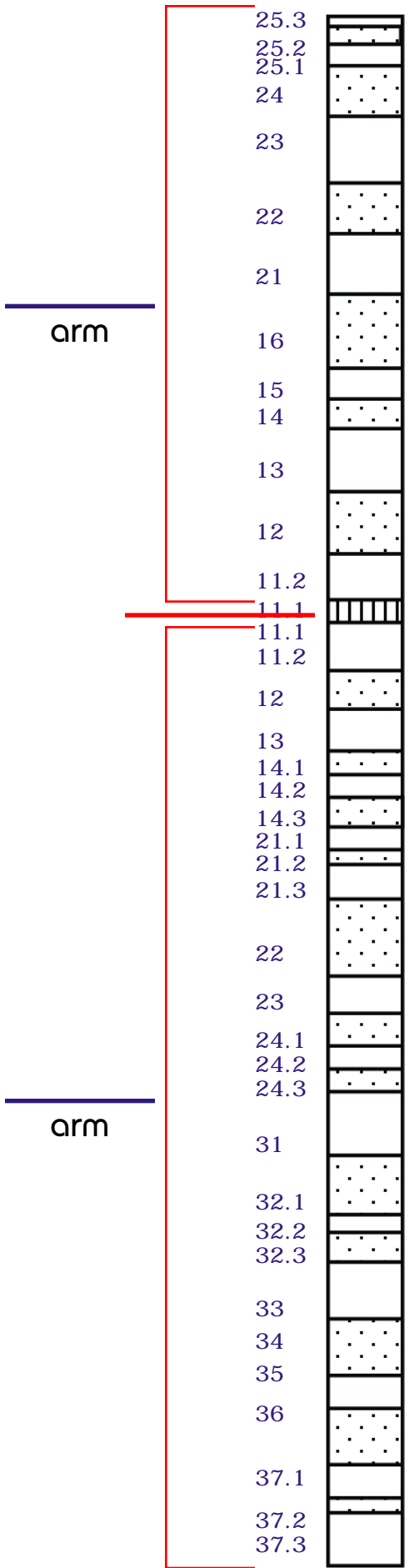
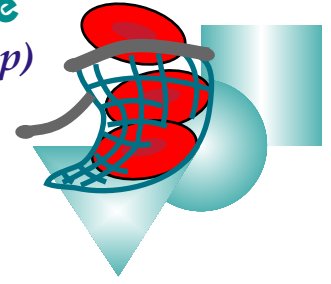


LESSON 3
ACTIVITY 3C-2

Chromosome Pattern Page

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CHROMOSOME 2



Genes Found on This Chromosome

Trait	Gene Location
Handedness (right dominant)	2p12-q22
Hair whorl	2p12-q22
Webbed digits	2q34-36
High blood pressure	2p25
High cholesterol (familial)	2p24
Short digits/normal length digits	2q33-q35
Pulmonary hypertension	2q33
Non-insulin dependent diabetes	2q32
Sleep phase disorder	2q37.3
Asthma susceptibility	2q22

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

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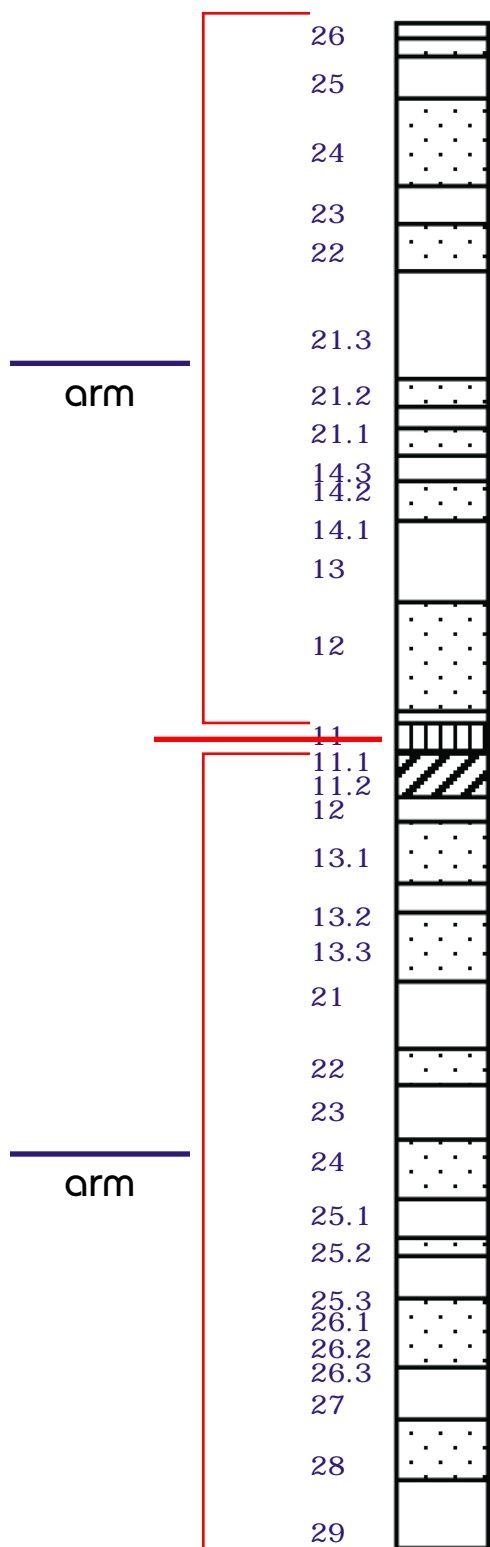
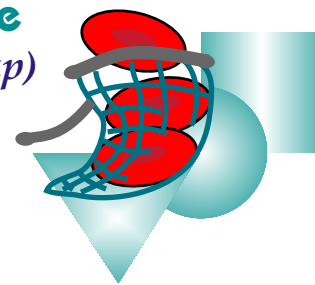
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Chromosome Pattern Page

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CHROMOSOME 3



Genes Found on This Chromosome

Trait	Gene Location
High blood pressure	3q21-q25
High cholesterol (familial)	3p21.2
Abdominal obesity	3q27
Obesity	3p26
Cell energy production	3p23

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

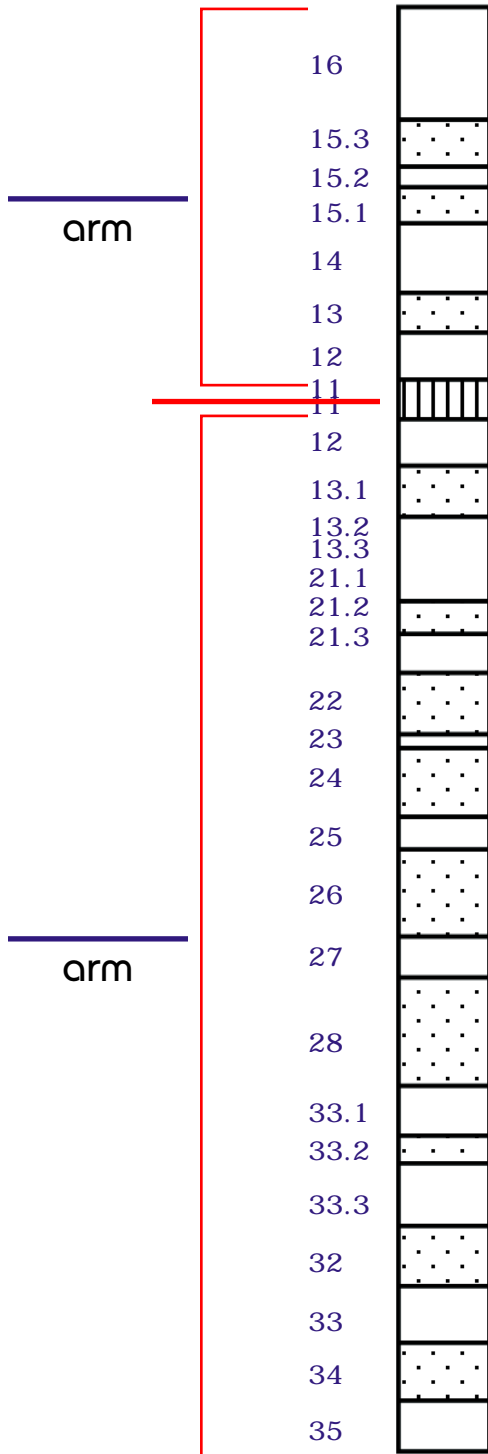
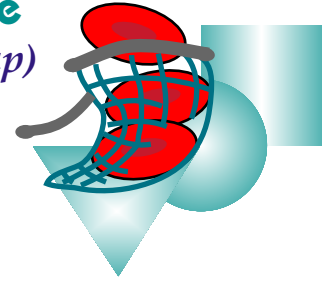
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 Width (cm) = _____
 Length X 10 = _____
 Width X 10 = _____



Chromosome Pattern Page

(1 copy for each student in group)

CHROMOSOME 4



Genes Found on This Chromosome

Trait	Gene Location
Deafness (neurosensory)	4p16.1
Dwarfism (short limb)	4p16.3
Narcolepsy	4p13-q21
High blood pressure	4p16.3
Obesity	4p15
Red hair color	4q28=q31

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

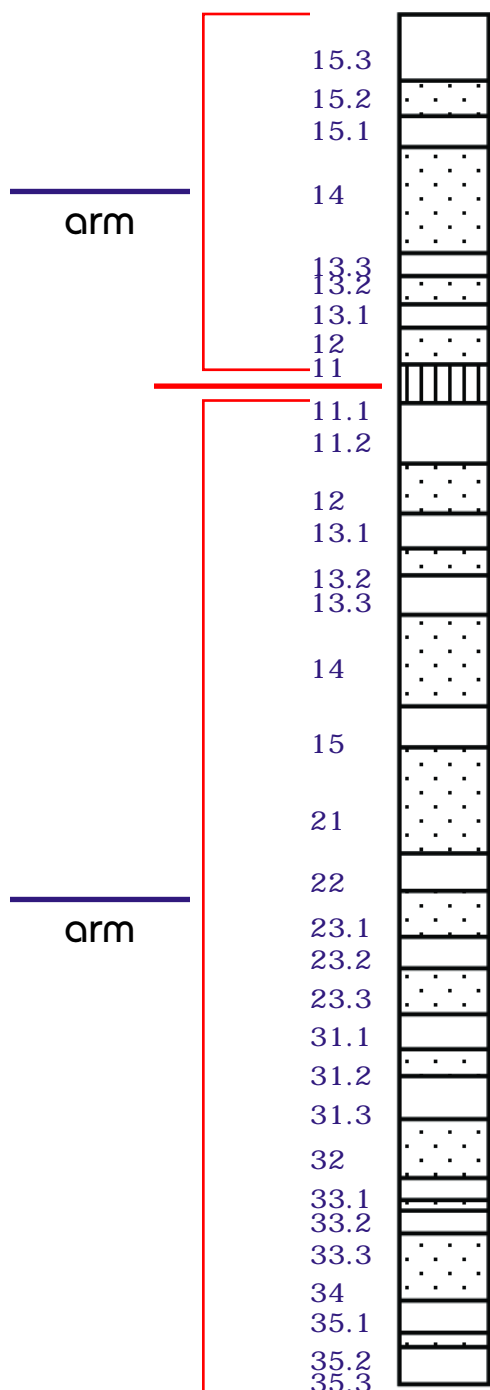
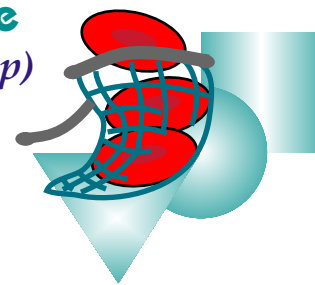
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 5



Genes Found on This Chromosome

Trait	Gene Location
Rheumatoid arthritis	5q31
Dwarfism (pituitary)	5p13-p12
Short digits/normal length digits	5p13.3
Non-insulin dependent diabetes	5q34-35
Obesity	5q13.2
Asthma susceptibility	5q32-q34; 5q31

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

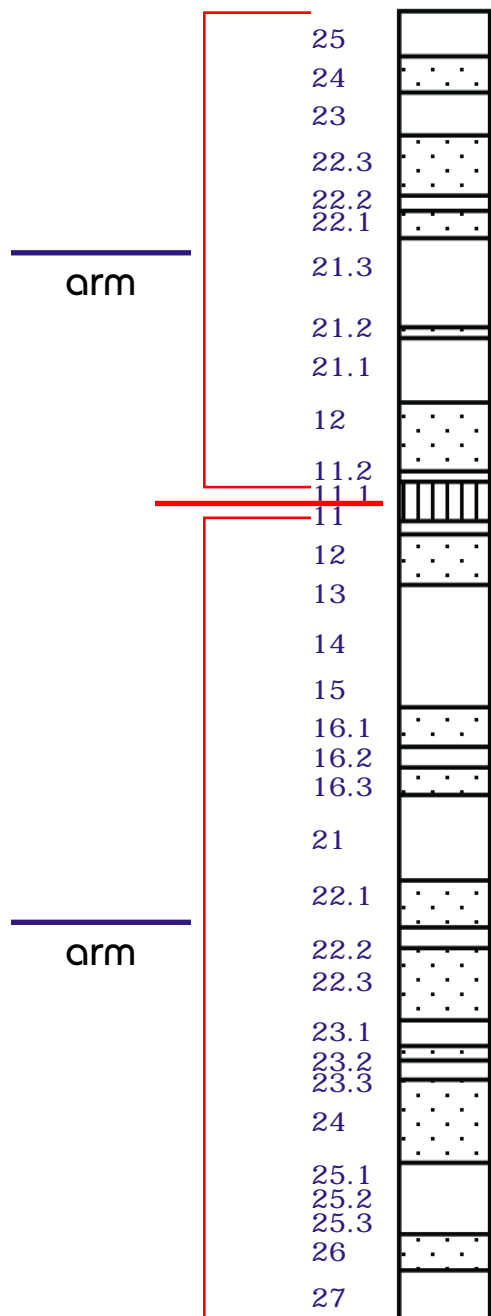
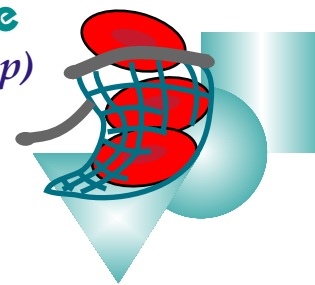
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 6



Genes Found on This Chromosome

Trait	Gene Location
Rheumatoid arthritis	6p21
Insulin dependent diabetes	6p21.3
Webbed/non-webbed digits	6q21
Non-insulin dependent diabetes	6q22; 6p12
Asthma susceptibility	6p21.2
Rh blood type	6p21.1
Ring finger protein	6p21.3

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

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Width (cm) = _____

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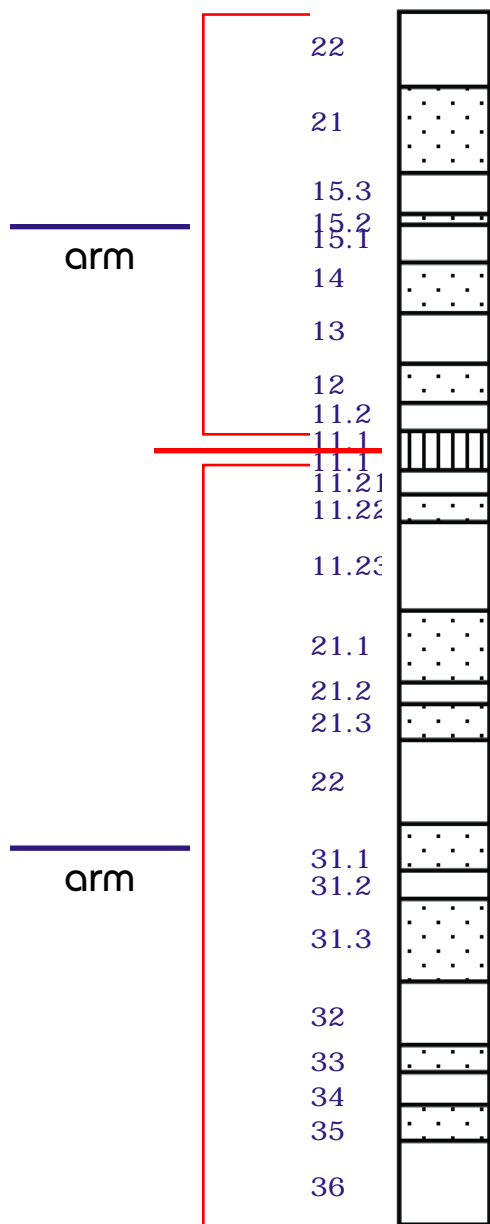
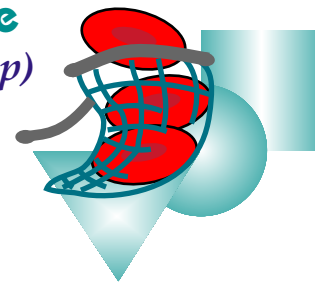
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 7



Genes Found on This Chromosome

Trait	Gene Location
PTC taster/non-taster	7q35-q36
Cystic fibrosis	7q31.2
High blood pressure	7q36; 7q22
Heart spasms/no spasms	7q36
High cholesterol (familial)	7p15
Extra digits/none	7p13

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

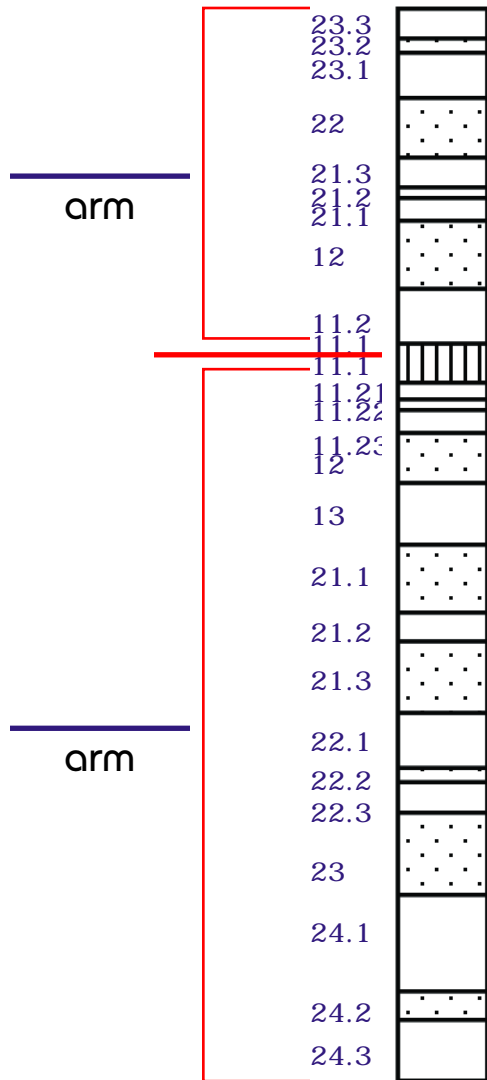
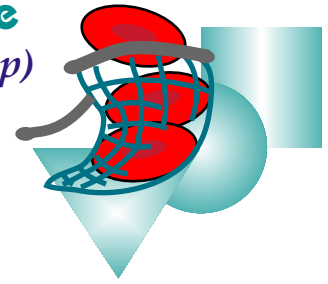
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 8



Genes Found on This Chromosome

Trait	Gene Location
Eyes absent or present	8 q13.3
High cholest. (familial)/normal	8p21-p12
Schizophrenia/none	8p21
Piebald/none	8q11
Reproduction of chromosome 8	8p11.2

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

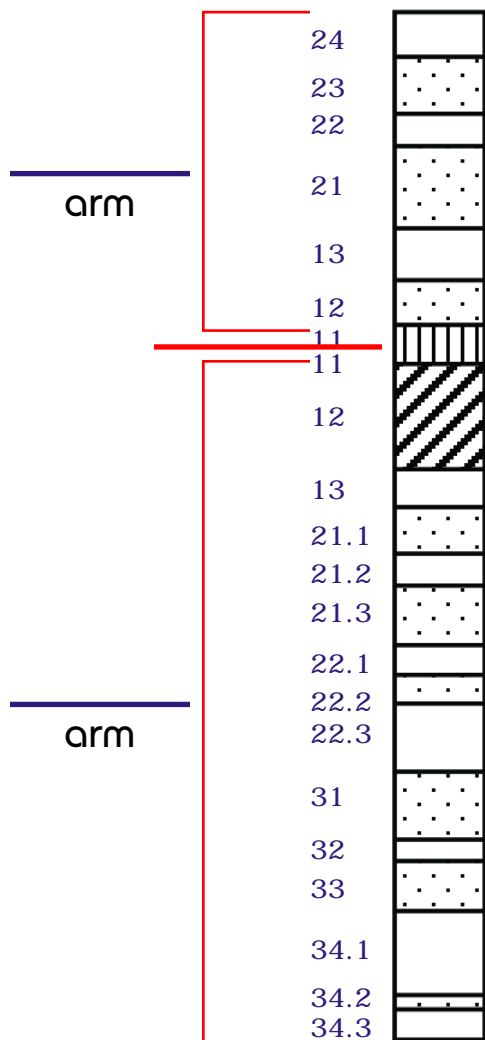
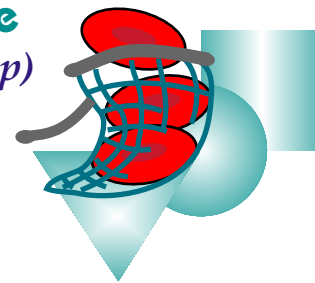
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 9



Genes Found on This Chromosome

Trait	Gene Location
Short digits/normal length digits	9q22
High cholesterol (familial)/normal	9q22-q23
ABO blood types	9q34
Glaucoma (juvenile)/none	9q34.1
Chromosome 9 reading frame	9p13

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

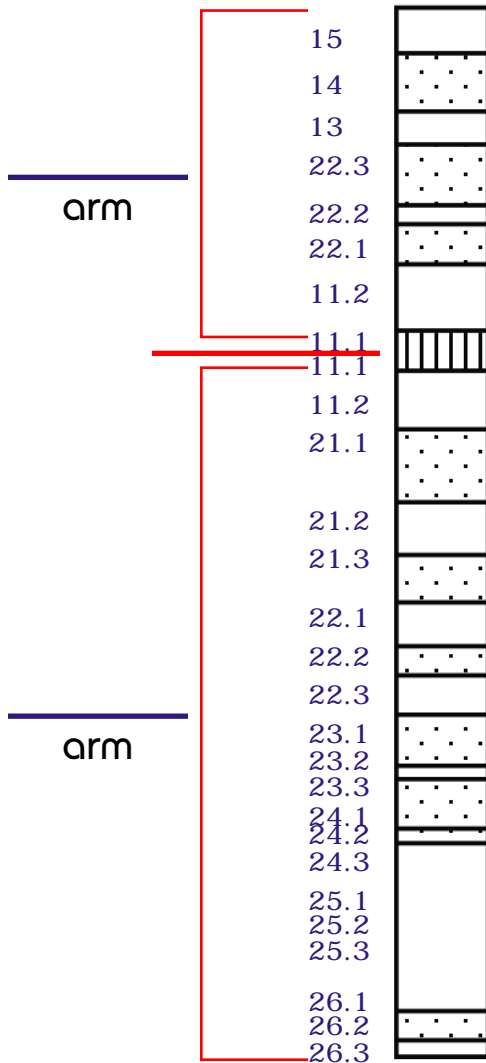
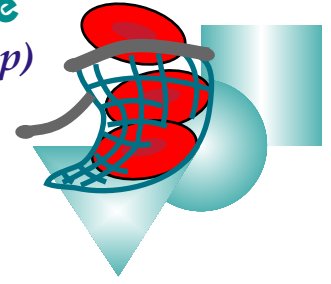
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Chromosome Pattern Page

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CHROMOSOME 10



Genes Found on This Chromosome

Trait	Gene Location
Breathing rhythm in sleep	10q26
Obesity	10p; 10q
Asthma susceptibility	10q11.2
Schizophrenia/none	10q22.3
Chromosome 10 reading frame	10q24

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

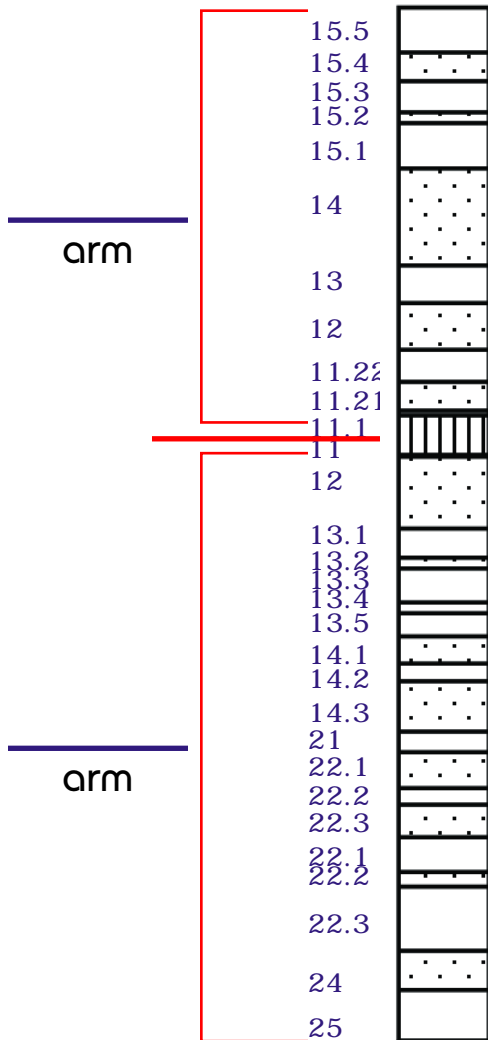
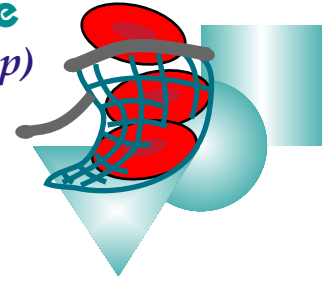
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 11



Genes Found on This Chromosome

Trait	Gene Location
Albinism/normal pigmentation	11q14-q24
Non-insulin dependent diabetes	11p12
Sickle cell/normal	11p15.5
Asthma susceptibility	11q12.3

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

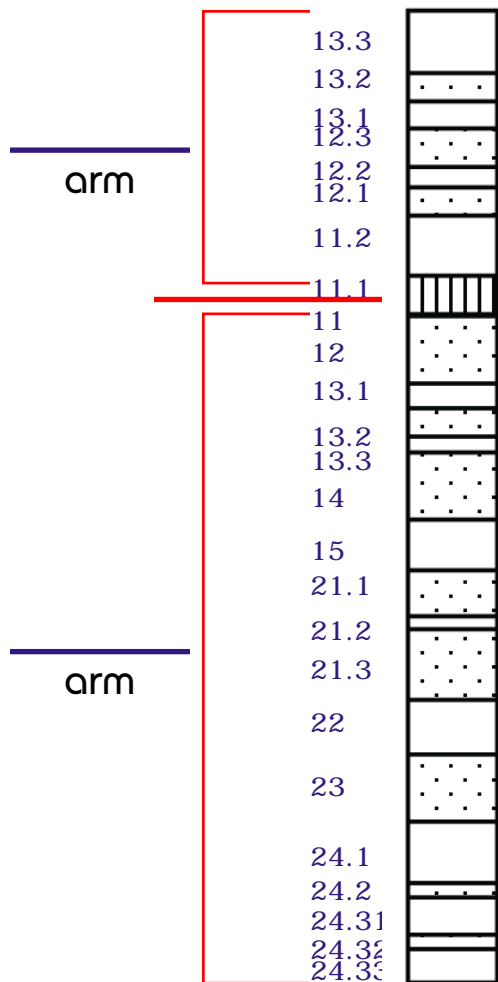
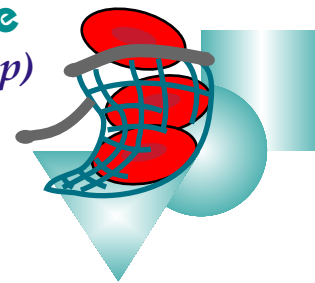
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 12



Genes Found on This Chromosome

Trait	Gene Location
High blood pressure/Normal b.p.	12p12.2; 12p13
Insulin dependent diabetes	12q24.2
Non-insulin dependent diabetes	12q24.2
Schizophrenia/none	12q24

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

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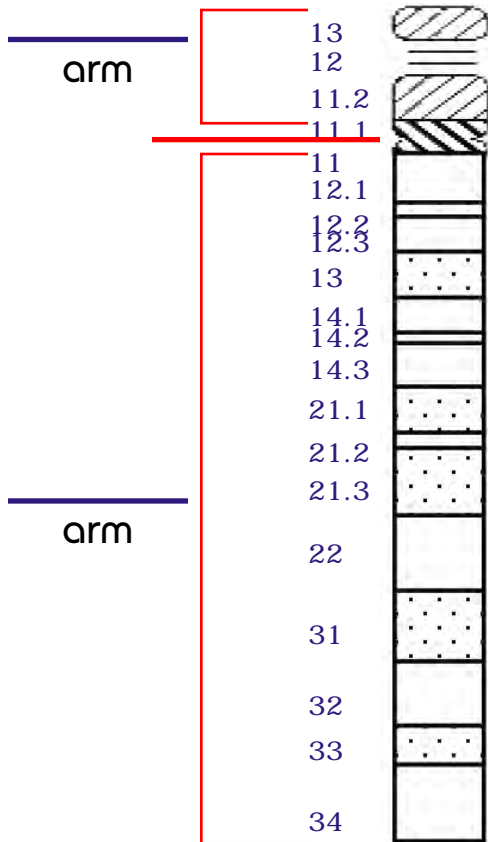
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Chromosome Pattern Page

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CHROMOSOME 13



Genes Found on This Chromosome

Trait	Gene Location
Deafness (neurosensory)/no deaf.	13q11
Non-insulin dependent diabetes	13q12
Panic disorder/none	13q22-q32
Asthma susceptibility	13q14.1
Extra digits/none	13

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

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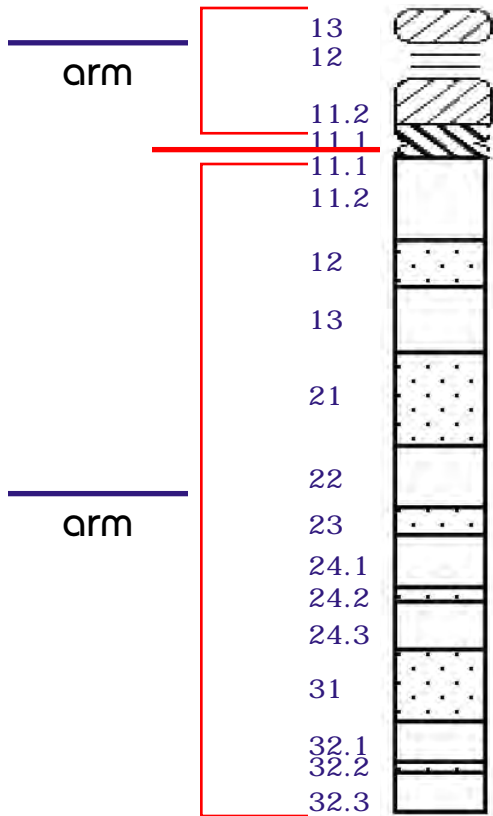
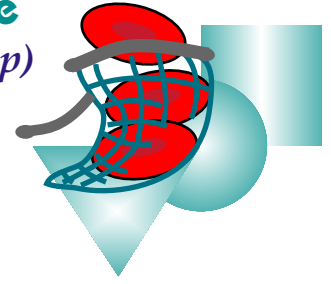
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 14



Genes Found on This Chromosome

Trait	Gene Location
Schizophrenia/none	14q32.3
DNA repair	14q12
X-ray repair	14q32.3
Programmed cell death	14q31
Alzheimer's Type 3	14q24.3

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

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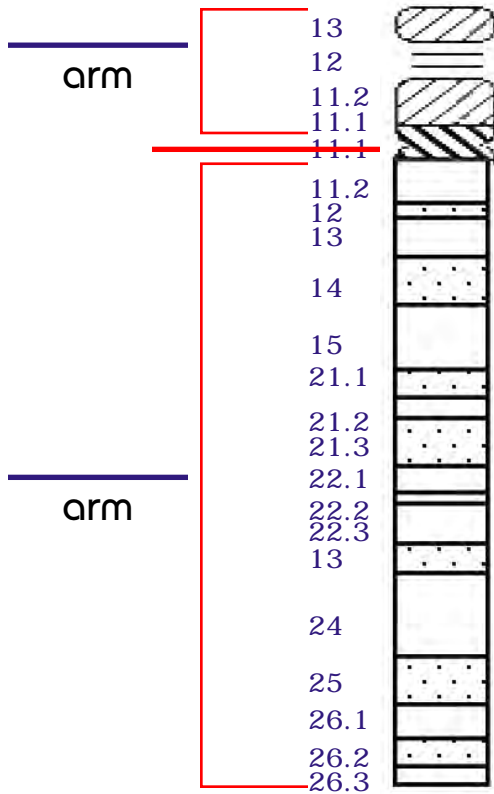
Width X 10 = _____



Chromosome Pattern Page

(1 copy for each student in group)

CHROMOSOME 15



Genes Found on This Chromosome

Trait	Gene Location
Albinism/normal pigmentation	15q11.2-q12
Tay-sachs/ no Tay-sachs	15q22-q24
High blood pressure/Normal b.p.	15q
Schizophrenia/none	15q15
Very tall/normal	15q21.1
Brown hair color	15q11-q15
Brown eyes	

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

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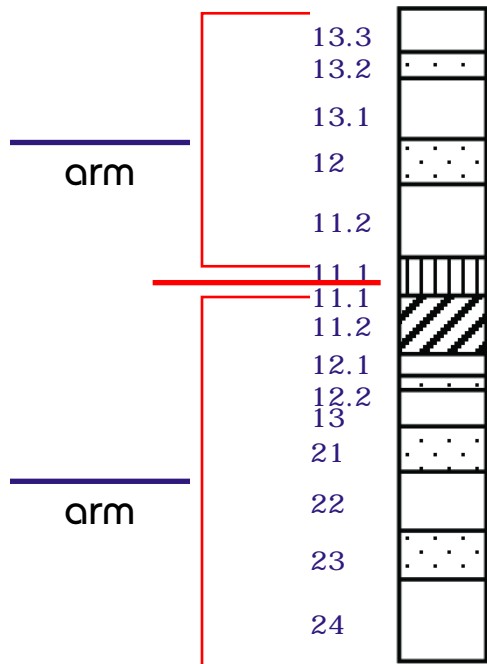
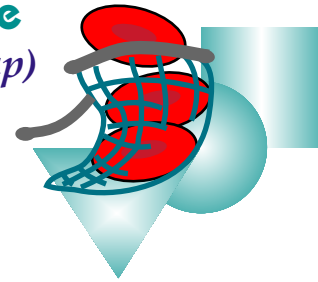
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 16



Genes Found on This Chromosome

Trait	Gene Location
Rheumatoid arthritis	16p13
Freckles/no freckles	16q24.3
Skin color	16q24.3
Cocaine sensitivity	16q12.2
Benzene sensitivity	16q22.1

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

Width X 10 = _____

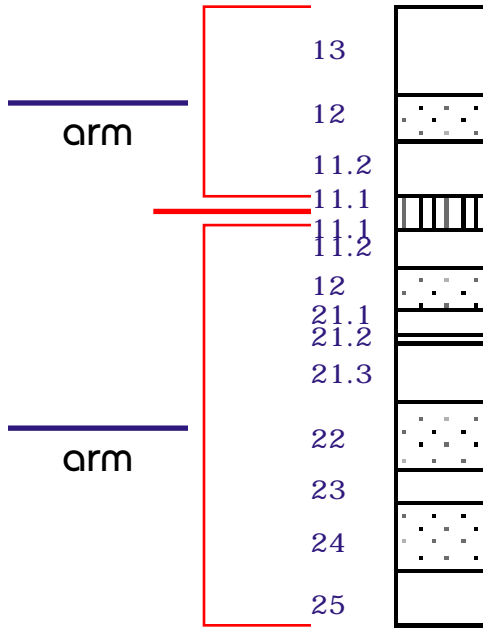
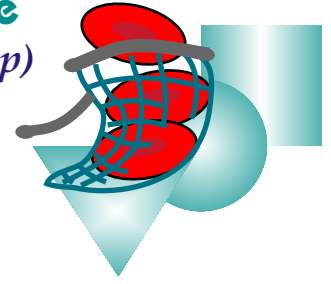


LESSON 3
ACTIVITY 3C-2

Chromosome Pattern Page

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CHROMOSOME 17



Genes Found on This Chromosome

Trait	Gene Location
High blood pres./Normal b.p.	17q21-q22
Non-insulin dependent diabetes	17q25
Growth hormone	17q22
Near sighted/normal	17q
Keratin (hair protein)	17q12-q21

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

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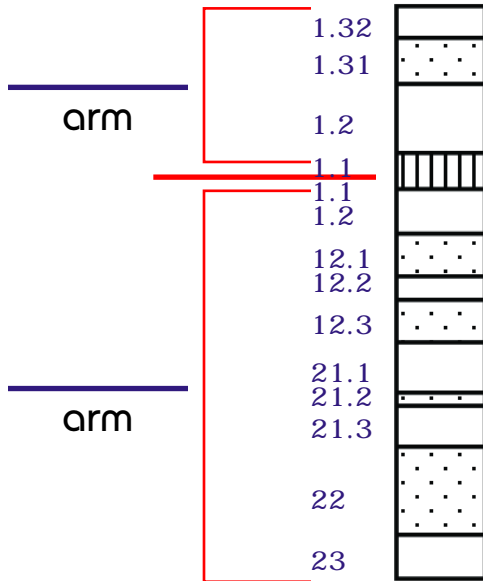
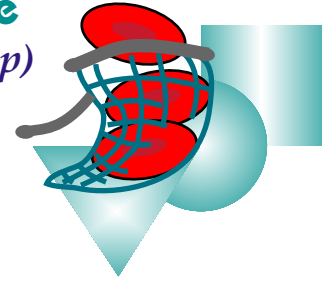
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Chromosome Pattern Page

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CHROMOSOME 18



Genes Found on This Chromosome

Trait	Gene Location
Near sightedness	18p11.31
Carpal tunnel (familial)	18q11.2
Colorectal cancer	18q21.3
Parkinson's Disease	18p11.3
Histamine receptor (Allergies)	18q11.2

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

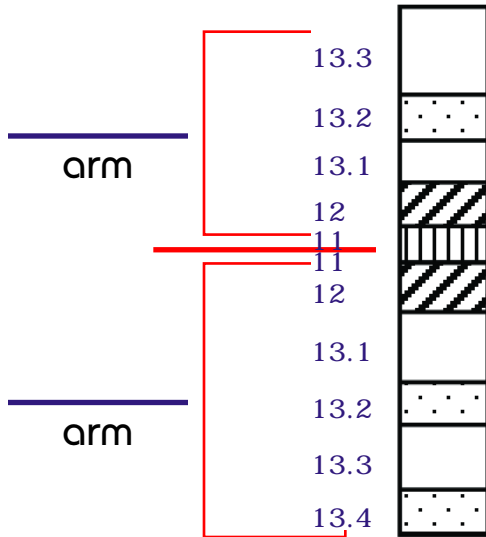
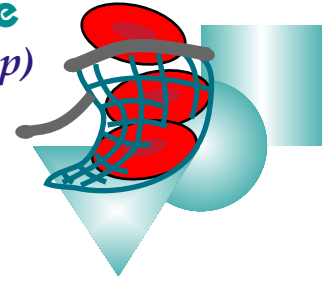
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME 19



Genes Found on This Chromosome

Trait	Gene Location
Cystic fibrosis	19q13
Non-insulin dependent diabetes	19q13
Acanthosis nigricans	19p13.2
High cholesterol (familial)/normal	19p13.2
Atherosclerosis susceptibility	19p13.3
ABO blood types	19q13.3
Extra digits/none	19p
Green & blue eyes	

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

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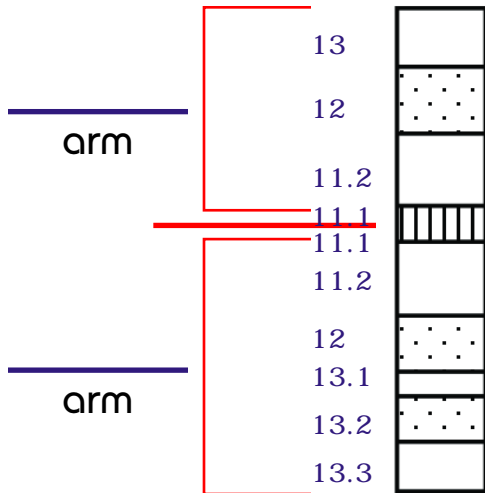


LESSON 3
ACTIVITY 3C-2

Chromosome Pattern Page

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CHROMOSOME 20



Genes Found on This Chromosome

Trait	Gene Location
High blood pressure/Normal b.p.	20q13
Non-insulin dependent diabetes	20q12
Gene expression factor	20q13
BMI	20p11.2
Obesity	20q13.11

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

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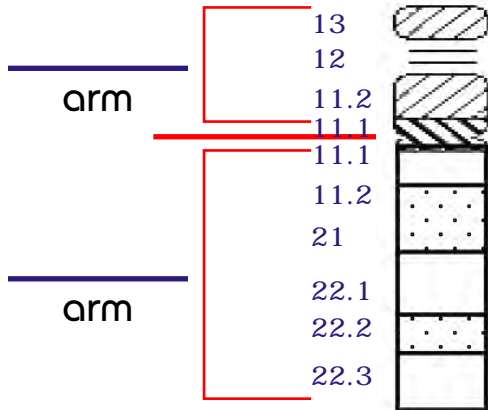
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Chromosome Pattern Page

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CHROMOSOME 21



Genes Found on This Chromosome

Trait	Gene Location
Alzheimer's disease	21q21
Lou Gehrig's Disease	21q22.1
Epilepsy	21.q22.3
Cataracts	21q22.3
Leukemia	21q22.3
Platelet disorder	21q13.2; 21q22.3

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

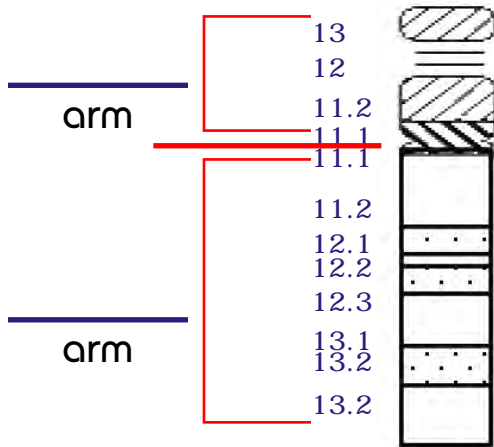
Width X 10 = _____



Chromosome Pattern Page

(1 copy for each student in group)

CHROMOSOME 22



Genes Found on This Chromosome

Trait	Gene Location
Panic disorder/none	22q11.2
Schizophrenia/none	22q12.3
Cat eye syndrome	22q11
Lou Gehrig's disease	22q12.2
Autism	22q13.1

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

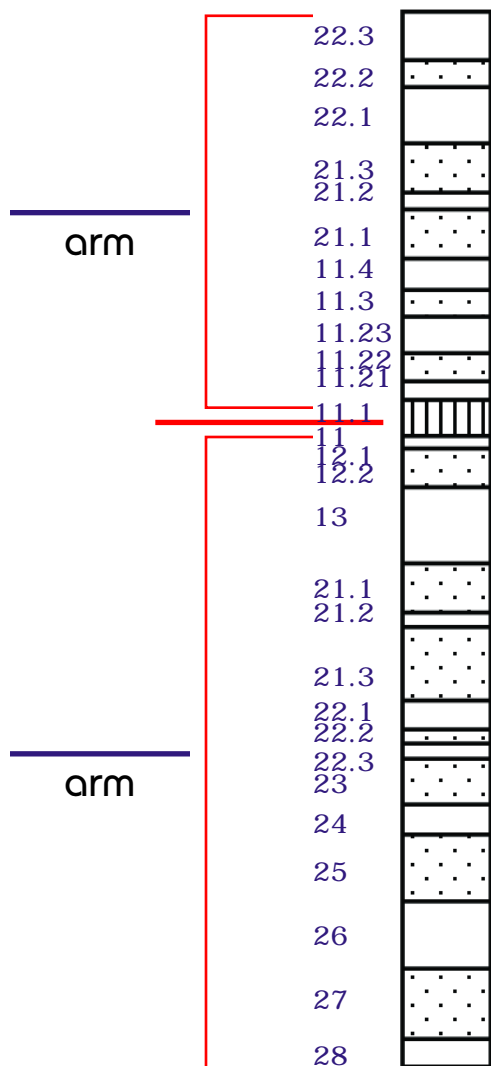
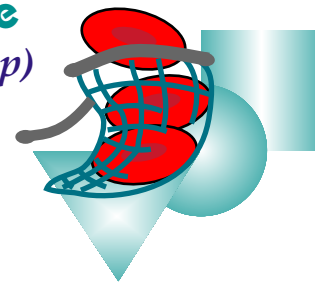
Width X 10 = _____



Chromosome Pattern Page

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CHROMOSOME X



Genes Found on This Chromosome

Trait	Gene Location
Male pattern baldness	Xq11
Hemophilia	Xq28
Deafness (conductive)	Xq21.1
Insulin dependent diabetes	Xp11.23-q13.3
Night blindness/none	Xp11.4
Color blindness/none	Xq28
Short stature/normal	Xp22.32

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

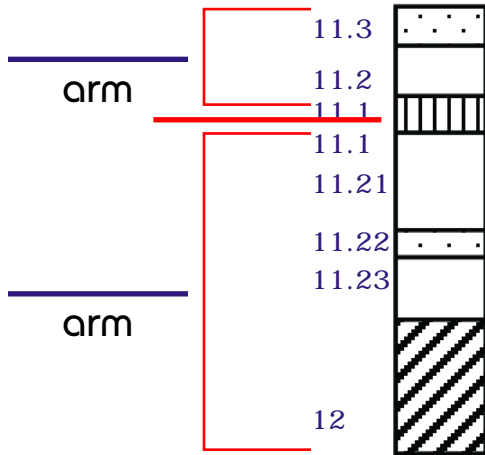
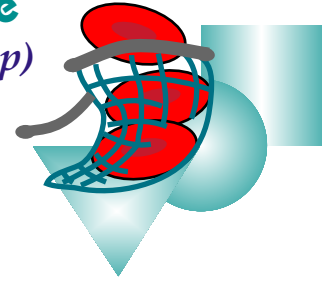
Width X 10 = _____



Chromosome Pattern Page

(1 copy for each student in group)

CHROMOSOME Y



Genes Found on This Chromosome

Trait	Gene Location
Short stature/normal	Yp11.2
Testis determining factor	Yp11.3
Sperm production failure	Yq11.2

Other Genes Found

Chromosome Number	Gene Function	Gene Location

SCALE CALCULATIONS

Length (cm) = _____

Width (cm) = _____

Length X 10 = _____

Width X 10 = _____



LESSON 3
ACTIVITY 3C-2