

Picture Perfect?

What do you notice about these pictures?

How are they alike?

How are they different?

Consider picture L to be the “original” picture.

- 1) Which pictures have the same relationship between the length and width as picture L has?
- 2) Which pictures are enlargements of picture L?
- 3) Which pictures are reductions of picture L?
- 4) Which other pictures have the same relationships between height and width?

<i>(reorient each picture so it is facing up before counting the dimensions)</i>	A	B	C	D	E	F	G
HEIGHT							
WIDTH							

<i>(reorient each picture so it is facing up before counting the dimensions)</i>	H	I	J	K	L	M
HEIGHT						
WIDTH						

Proportion match up –
Cut the cards apart.
Match each to its solution.

10

$$\frac{16}{88} = \frac{x}{55}$$

$$\frac{4}{9} = \frac{12}{x}$$

27

90

$$\frac{22}{30} = \frac{66}{m}$$

$$\frac{c}{5} = \frac{6}{15}$$

2

6

$$\frac{x}{18} = \frac{21}{63}$$

$$\frac{6}{16} = \frac{9}{w}$$

24

5

$$\frac{20}{w} = \frac{12}{3}$$

$$\frac{x}{14} = \frac{28}{56}$$

7

15

$$\frac{x}{10} = \frac{6}{4}$$

$$\frac{20}{b} = \frac{15}{9}$$

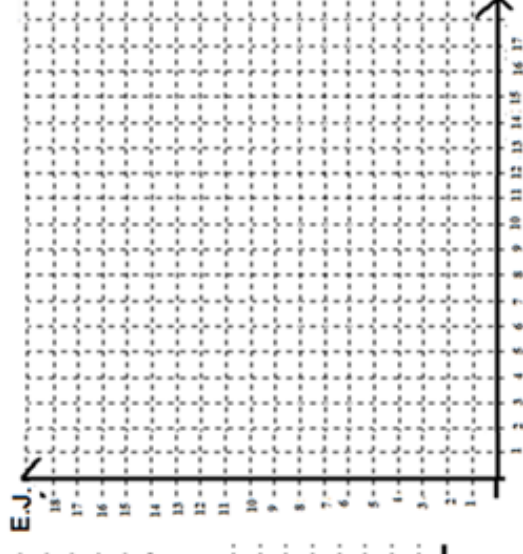
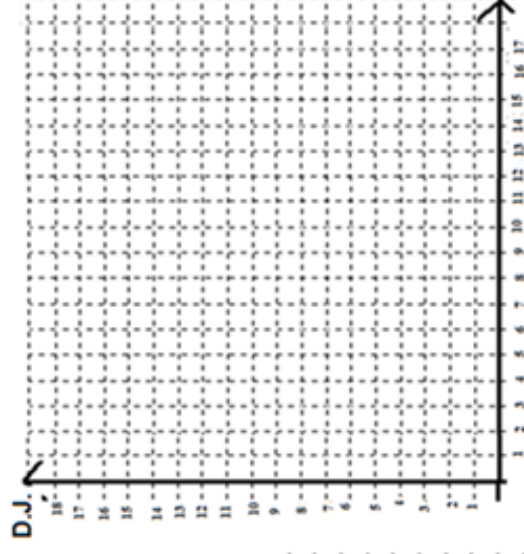
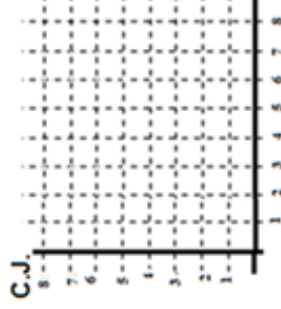
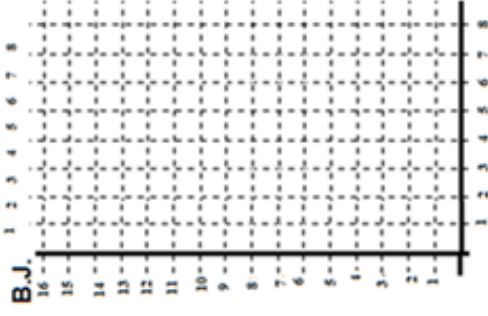
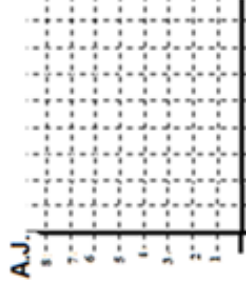
12

100

$$\frac{n}{12} = \frac{125}{15}$$

Marilyn Dibble's Similar Mouse Family -- Complete the table by following the rule below each mouse name. For example, for B.J. the rule is $(x, 2x)$ so the x coordinate stays the same, but the y coordinate is multiplied by 2. Plot the points from the coordinates of each mouse, connecting each point to the previous one as you plot them. Finally connect the last point with the first point, add 2 eyes, a smile and a curved line in each ear. Identify which ones are members of A.J.'s family. (Hint: A.J.'s family members are all similar.)

A.J.	B.J.	C.J.	D.J.	E.J.
(x, y)	$(x, 2y)$	$(\frac{1}{2}x, \frac{1}{2}y)$	$(2x, 2y)$	$(2x, y)$
(1, 1)	(1, 2)	$(\frac{1}{2}, \frac{1}{2})$	(2, 2)	(2, 1)
(1, 3)				
(2, 3)	(2, 6)	(1, 1.5)	(4, 6)	(4, 3)
(3, 5)				
(2, 5)				
(1, 7)				
(2, 8)				
(3, 7)				
(6, 7)				
(7, 8)				
(8, 7)				
(7, 5)				
(6, 5)				
(7, 3)				
(8, 3)				
(8, 1)				



2

3

8

12

2

3

8

12

2

3

8

12

2

3

8

12

1. A boy went fishing. He caught one fish that weighed 2 lbs. If he caught 5 fish, they would weigh 10 lbs. all together.	2. Fifteen pieces of candy cost \$2.80 therefore 45 pieces of the same candy will be \$8.40.
3. If Raejean types 20 characters in 15 seconds for her text message, then she can type 80 characters in 60 seconds.	4. If it takes 20 minutes to bake a half sheet of cookies, then it will take 40 minutes to bake a whole sheet of cookies.
5. Staveya can read 25 words in one minute. If she reads for 10 minutes she will read 250 words.	6. A student's last name is 6 letters long, so 5 students' last names are 30 letters long.
7. A 12oz bag of popcorn holds 6 cups of popped corn, so a 36oz bag should hold 18 cups.	8. If 6 boys can deliver papers in 3 hours, then 4 boys could do that route in 1 hour.
9. Jasmine spends \$4 on 3 tickets. That means she would spend \$9 on 8 tickets.	10. If one person can run 10 miles in 8 minutes, then 4 people can run 40 miles in 8 minutes.