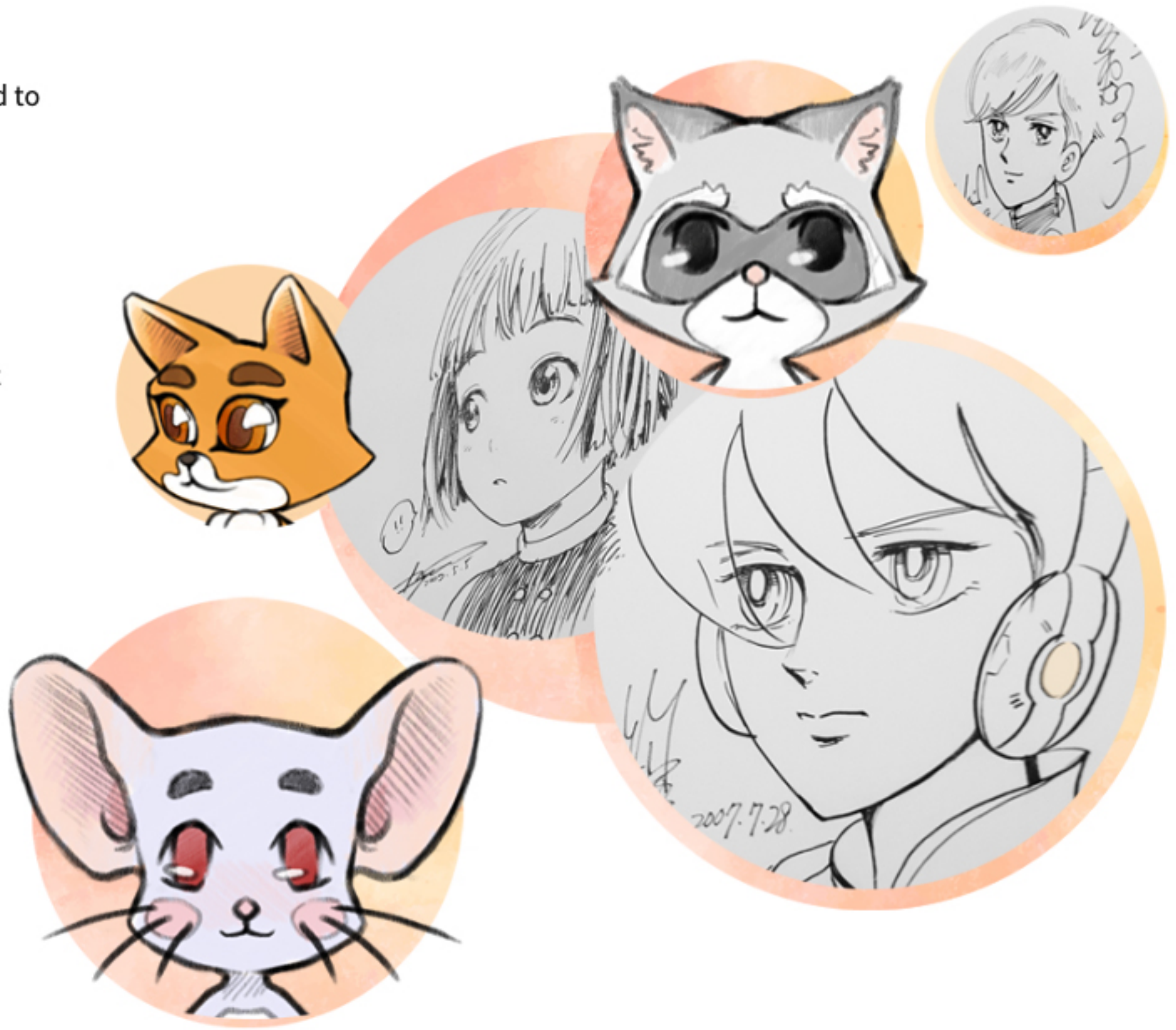**Ms. Medley**

Hello! Welcome to the Introduction to Manga class.

I am your teacher, Ms. Medley. I am excited to have you in my class this semester while you are studying here in Tokyo.

Manga is an art form that began in Japan. It is used in comics and cartooning. Manga characters often have a very distinctive and recognizable style. We will learn about that style during this class.

Select **Next** to continue.

NEXT >

Ms. Medley

Your project for the class consists of two parts.

1. Create a character using guidelines that I will provide.

2. Use the character to create a one-page storyboard.

Let's get started!

Ms. Medley

Our first Manga character is a raccoon. Let's use graph paper to determine the ratios between its body parts.

- Head
- Torso
- Legs

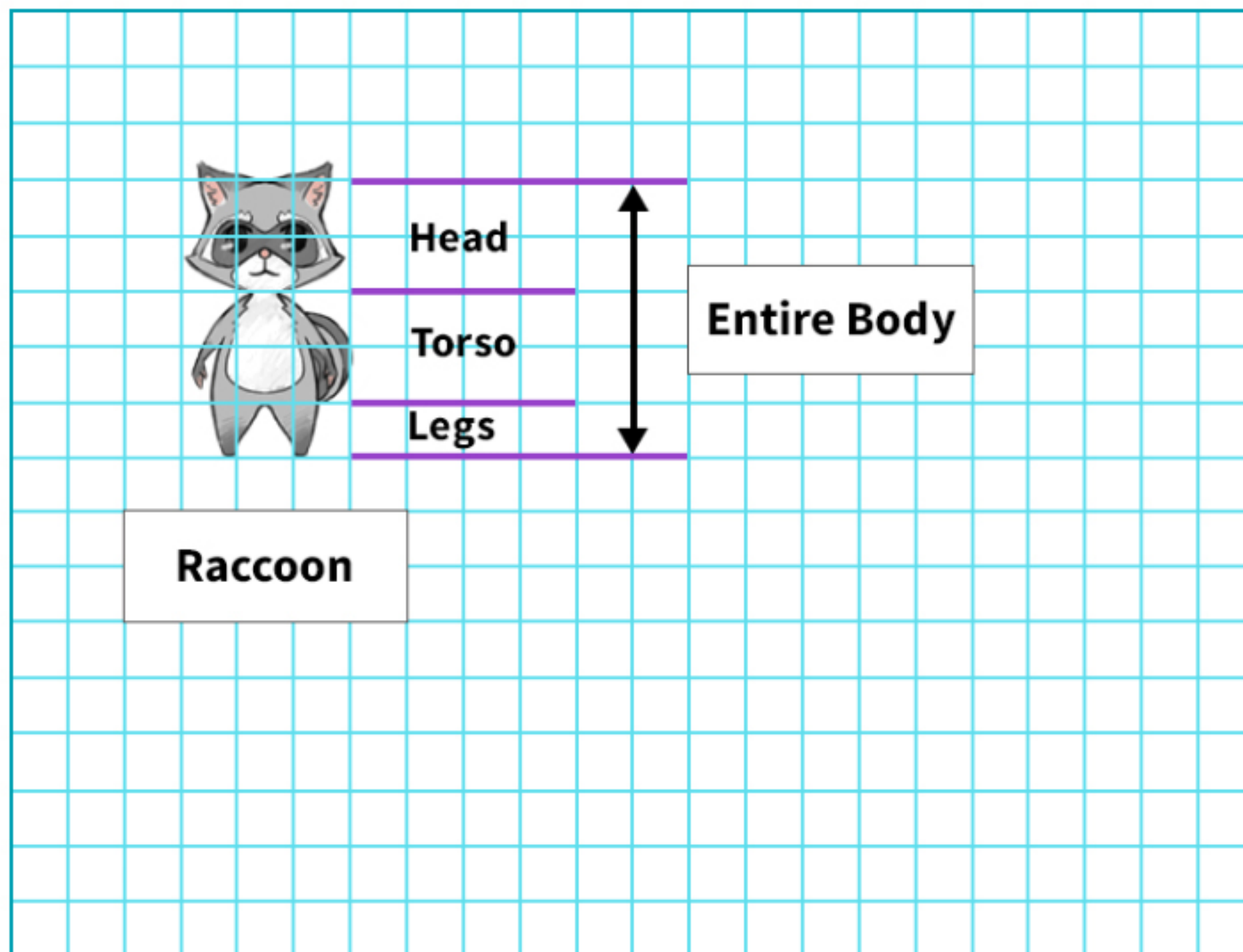What are the ratios of the body parts for the raccoon?

Move a ratio into each box.

0:0	0:0	0:0
0:0	0:0	0:0

Body Parts	Ratio
Head to torso	
Torso to legs	
Head to entire body	
Legs to entire body	

Graph Paper

Head

Torso

Legs

Entire Body

Raccoon

NEXT ›

Let's analyze another character.
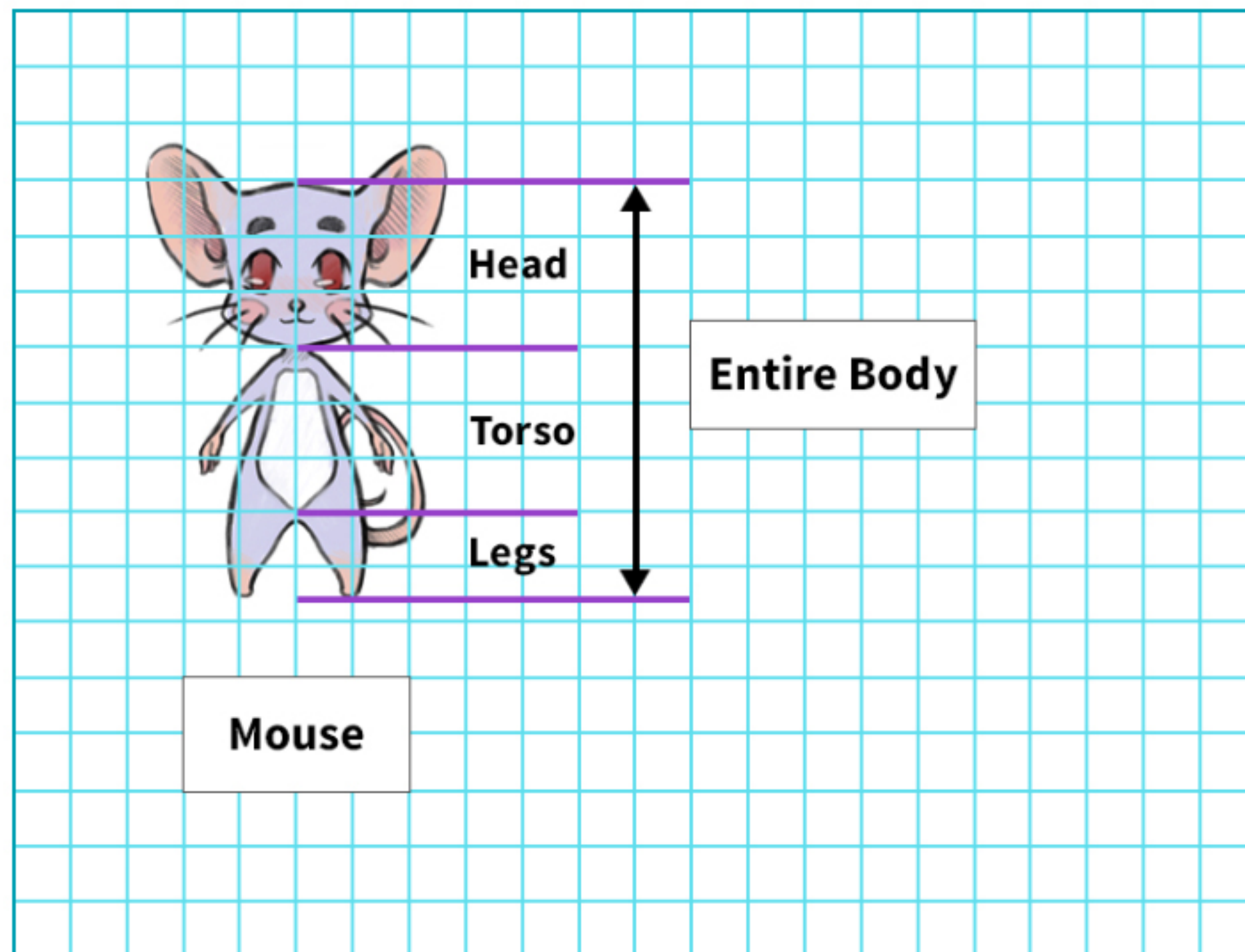
Ms. Medley

Mouse Measurements

- The height of the head is 3 units.

- The height of the torso is 3 units.

- The height of the entire body is 7.5 units.

The height of the head is exactly what fraction of the height of the entire body?

Enter a whole number in each box to create the fraction.

Head

Entire Body

Torso

Legs

Mouse

NEXT >

I summarized the ratios for the two characters in a table.

Ms. Medley

Character Ratios

Ratios of Body Parts	Raccoon	Mouse
Head to entire body	$\frac{0}{0}$	$\frac{00}{00}$
Torso to entire body	$\frac{0}{0}$	$\frac{00}{00}$
Legs to entire body	$\frac{0}{0}$	$\frac{00}{00}$

Are the corresponding heights of the body parts for the two characters proportional?

○ Yes, because each pair of fractions is equivalent.

○ Yes, because the sum of the fractions for each character is 0.

○ No, because $\frac{0}{0}$ is equivalent to $\frac{00}{00}$, not $\frac{0}{00}$.

○ No, because the raccoon is smaller than the mouse.
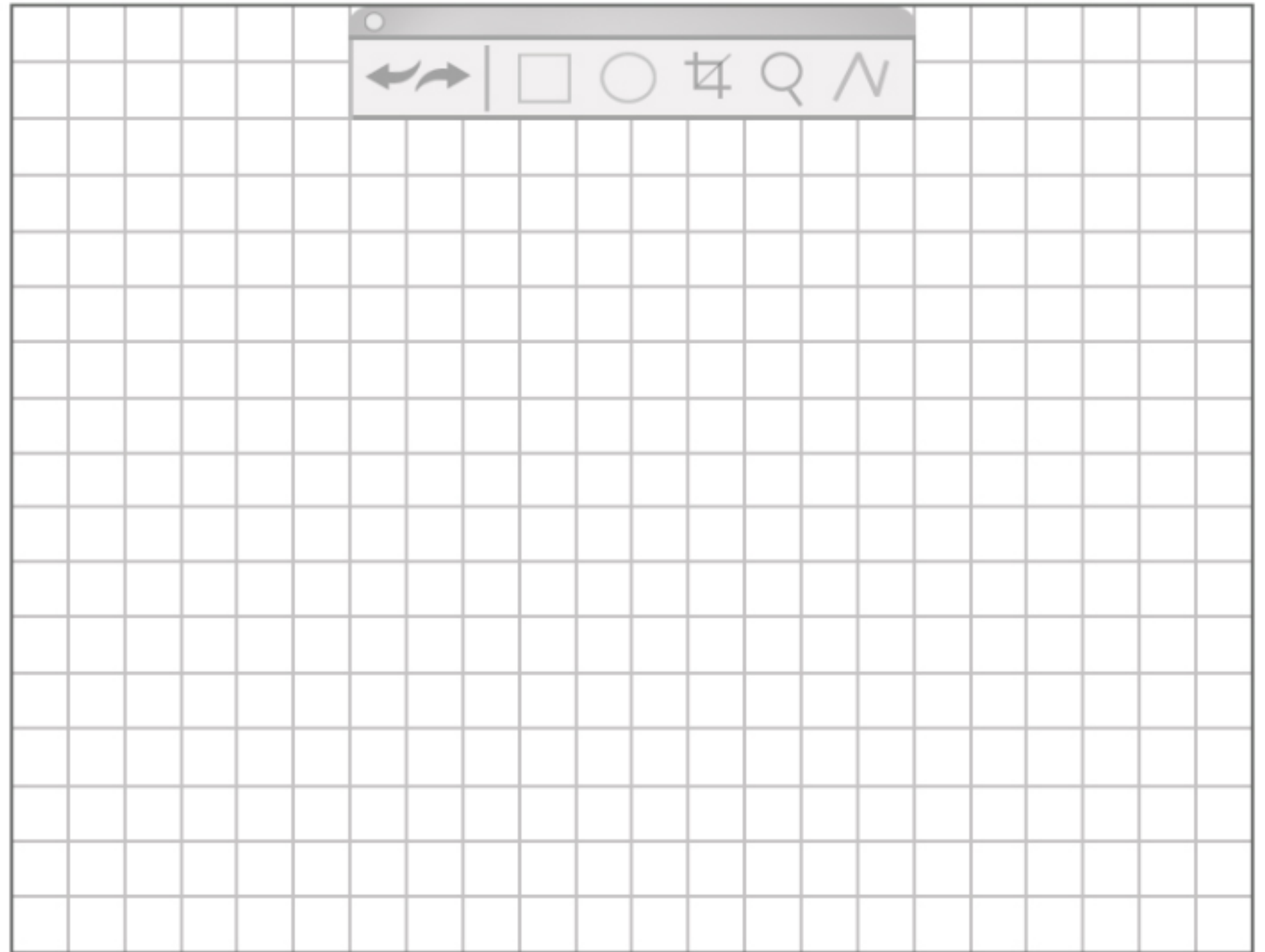
Graph Paper
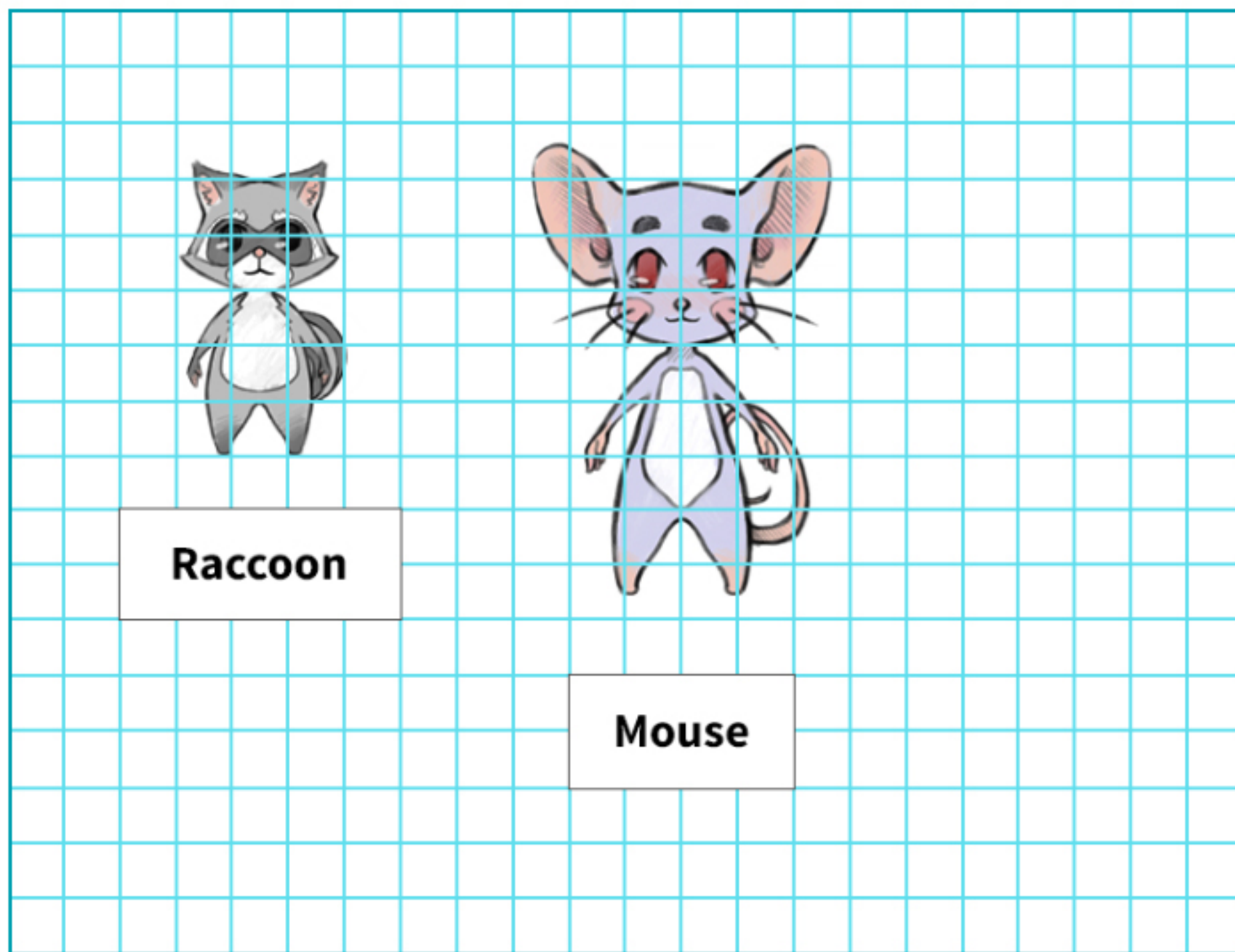
NEXT >

Ms. Medley

Here are the ratios and the drawing application that you will use to create your Manga character.

Guidelines

- Ratios:
  - Head to entire body is $\frac{0}{0}$
  - Torso to entire body is $\frac{0}{0}$
  - Legs to entire body is $\frac{0}{0}$
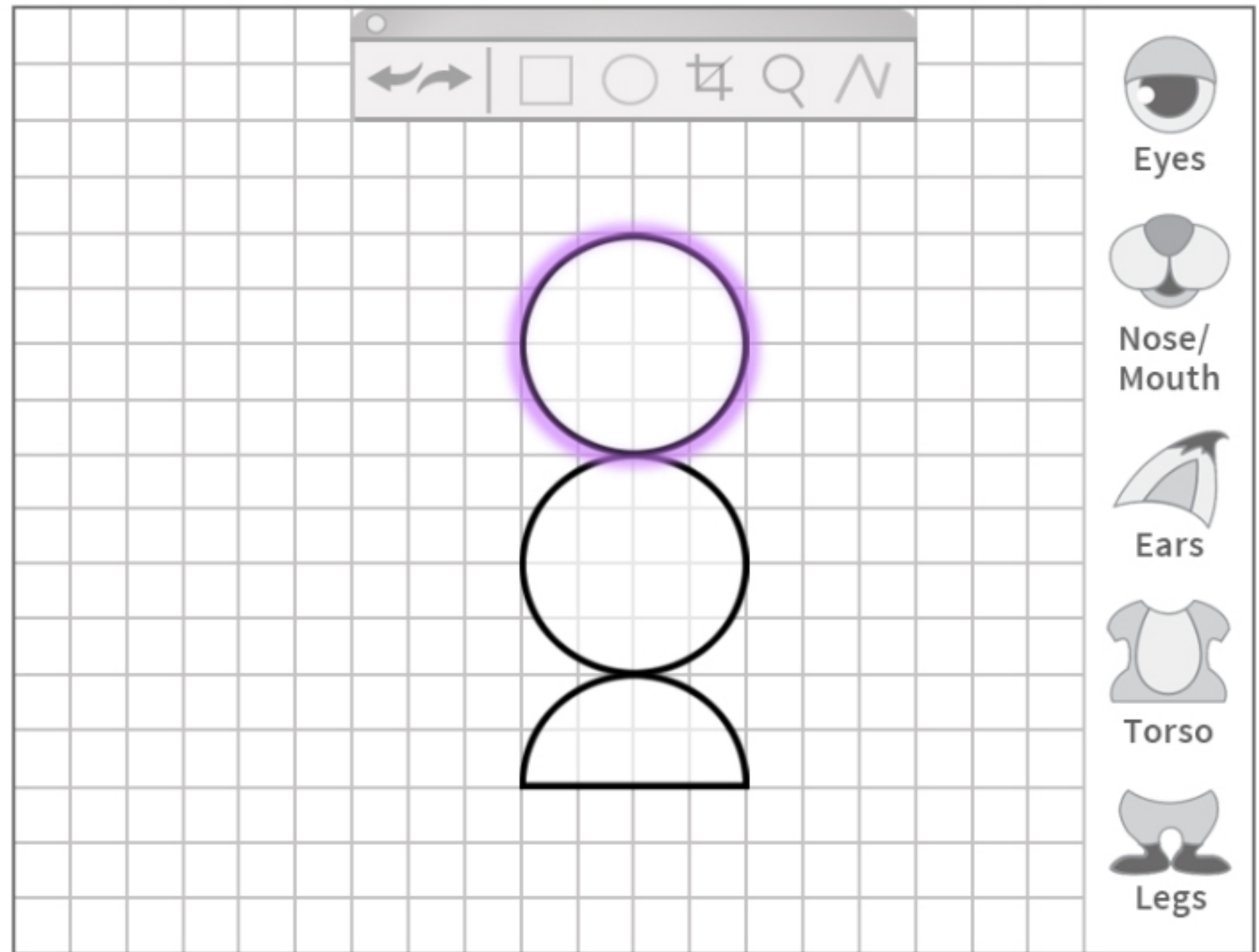
Select **Next** to continue.

NEXT >

Ms. Medley

Now, let's go back to the drawing application to create the face of your character.

Select **Next** to continue.

Eyes

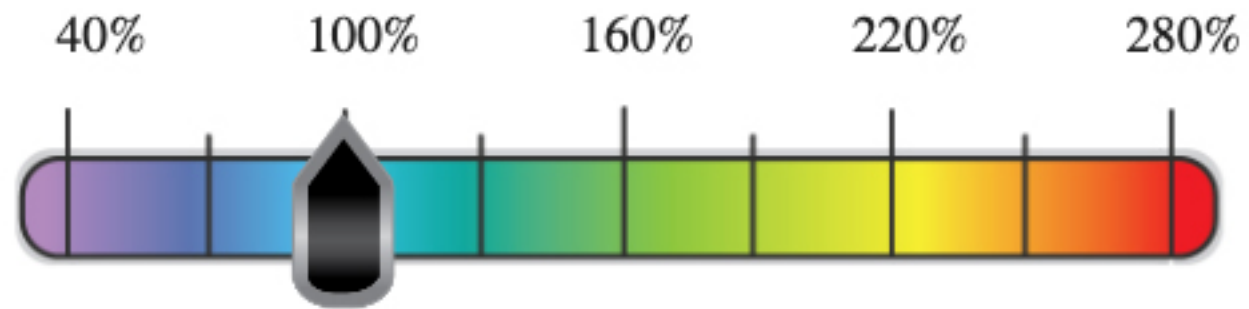Nose/Mouth

Ears

Torso

Legs

NEXT >

![Ms. Medley]

Ms. Medley

It will be easier to work on the face of your character if we first adjust its size.

Let's zoom in on the drawing to increase the diameter of the head from 4 units to 10 units.

The new diameter is what percent of the original diameter?

Move the slider to show your answer. When you are finished, press **Next** to continue.

40%	100%	160%	220%	280%

Eyes

Nose/ Mouth

Ears

Torso

Legs

NEXT >

Now let's determine the dimensions of the nose/mouth oval.

Ms. Medley

Face Ratios

Part of the Face	Percent of the Head's Diameter
Diameter of each eye circle	0
Height of the nose/mouth oval	0
Width of the nose/mouth oval	0

What must be the height and width, in units, of the nose/mouth oval?

Height of the nose/mouth oval: [   ] units

Width of the nose/mouth oval: [   ] units

10 units

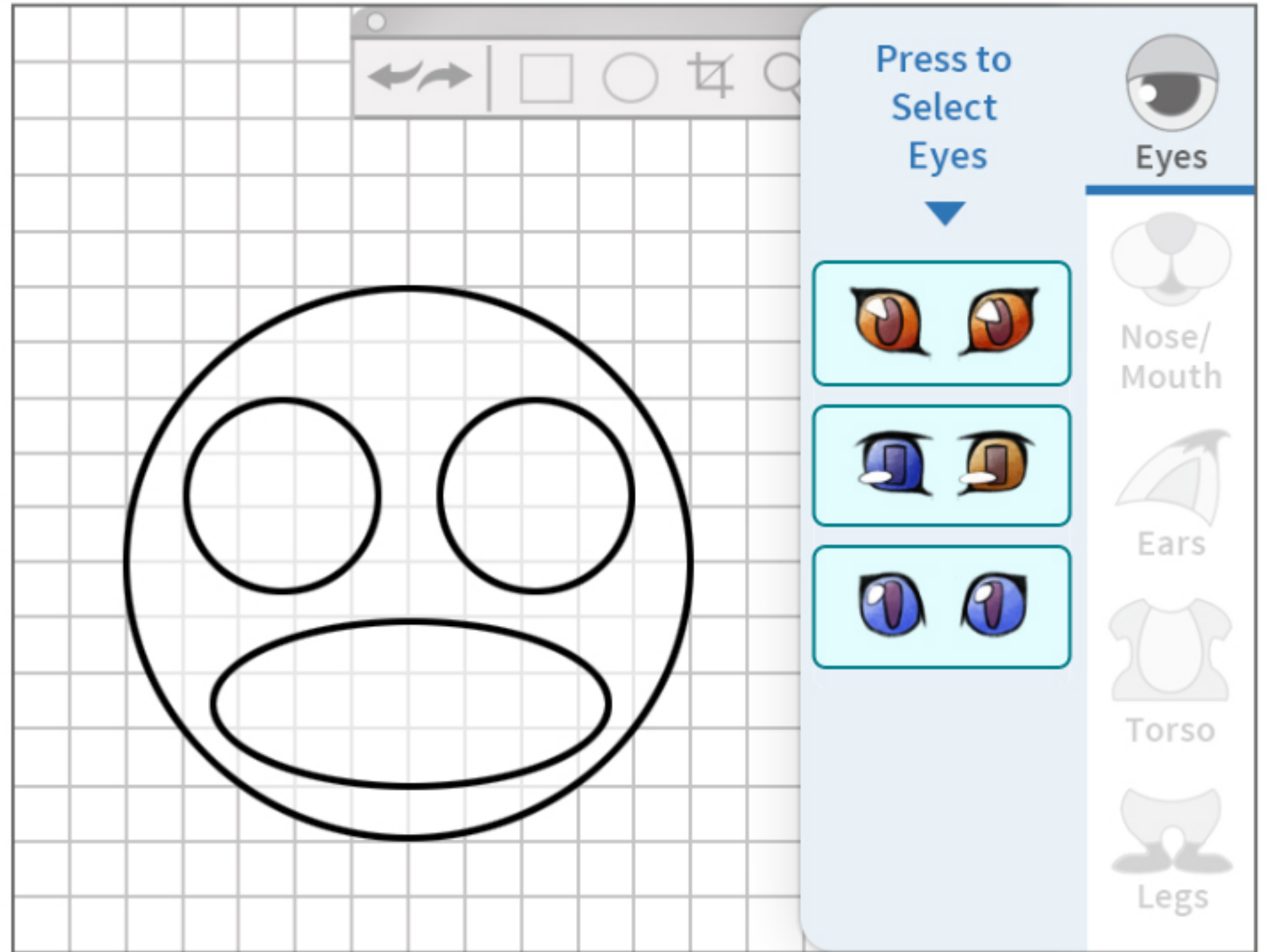Eyes

Nose/Mouth

Ears

Torso

Legs

NEXT >

Ms. Medley

All the proportions are set.

Now comes the fun part! You get to choose the design of each part of the face.

Start by selecting the eyes you would like to use for your character.
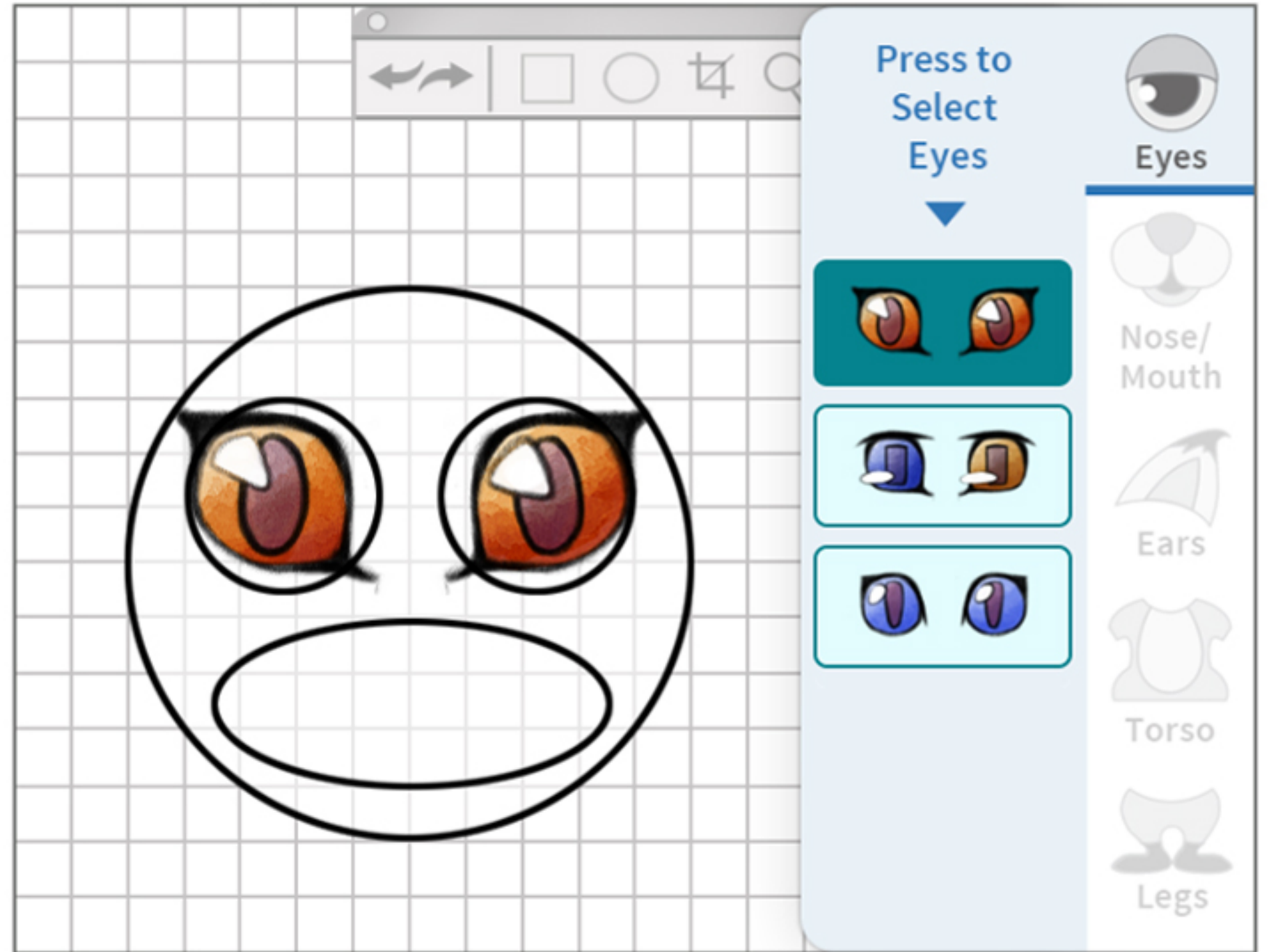
Press to Select Eyes ▼

Eyes

Nose/ Mouth

Ears

Torso

Legs

NEXT ›

Ms. Medley

All the proportions are set.

Now comes the fun part! You get to choose the design of each part of the face.

Start by selecting the eyes you would like to use for your character.

Press to Select Eyes ▼

Eyes

Nose/Mouth

Ears

Torso

Legs

NEXT >

Ms. Medley

Now select the nose and mouth you would like to use for your character.

Press to
Select
Nose/Mouth
▼

Eyes

Nose/
Mouth

Ears

Torso

Legs

NEXT >

Ms. Medley

Finally, select the ears you would like your character to have.

Press to Select Ears
▼

Eyes

Nose/ Mouth

Ears

Torso

Legs

NEXT >

Ms. Medley

OK! Let's finish up the rest of your character. The other body parts don't have as much detail, so let's work from the original size.

Select the torso you would like to use for your character.

Press to Select Torso ▼

Eyes

Nose/ Mouth

Ears

Torso

Legs

NEXT ›

Now, select the legs you would like your character to have.

Ms. Medley

Graph Paper   **Drawing App**

Press to
Select
Legs
▼

Eyes

Nose/
Mouth

Ears

Torso

Legs

NEXT >

Ms. Medley

We are done with the first part of the project.

✓ 1. Create a character using guidelines that I will provide.

2. Use the character to create a one-page storyboard.

Select **Next** to continue.
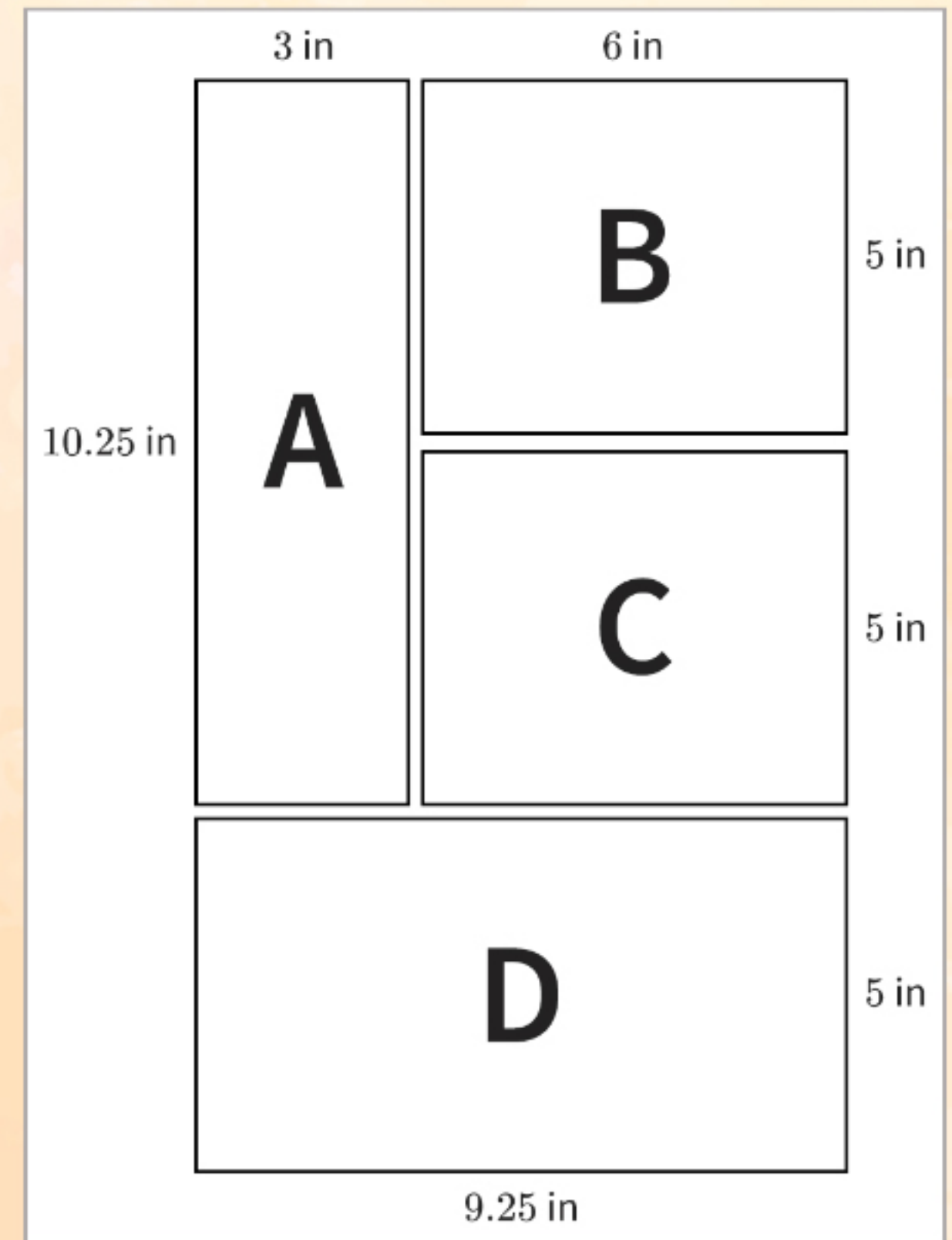
NEXT ›

Ms. Medley

Let's work on the storyboard now.

A storyboard is a sequence of drawings that tells a short story. Your storyboard will use the character you created.

For your storyboard, the page is divided into four panels. The dimensions of each panel are shown in the figure.

3 in | 6 in

A

B — 5 in

10.25 in

C — 5 in

D — 5 in

9.25 in

Note: Images not drawn to scale.

NEXT >

To fit Drawing 1 into Panel A, we first need to check that they are proportional.

Ms. Medley

Are the dimensions of Drawing 1 proportional to the dimensions of Panel A?

○ Yes, Drawing 1 and Panel A are proportional with a scale factor of $\frac{0}{0}$.

○ Yes, Drawing 1 and Panel A are proportional with a scale factor of $\frac{0}{0}$.

○ No, Drawing 1 and Panel A are not proportional because $\frac{0}{0} \neq \frac{0000}{0000}$.

○ No, Drawing 1 and Panel A are not proportional because $(0000 - 0) \neq (00 - 0)$.

9 in

33 in

Will they remember me?

Drawing 1

3 in 6 in

A

B 5 in

C 5 in

10.25 in

D 5 in

9.25 in

Note: Images not drawn to scale.

NEXT >
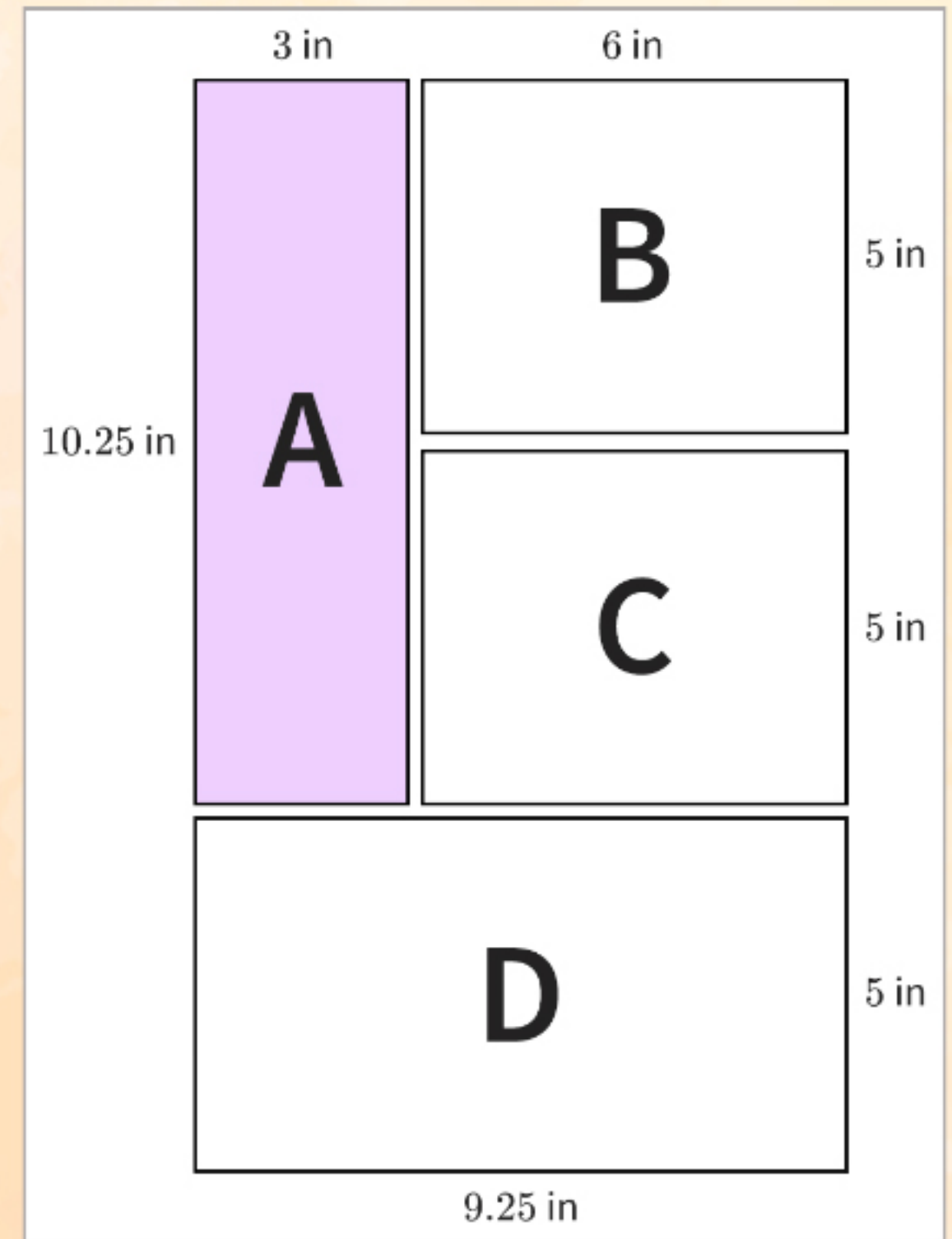
I think Drawing 2 should fit well in Panel B. They seem to be proportional.

Ms. Medley

Create an equation that shows that Drawing 2 is proportional to Panel B.

Move a ratio into each box.

$\frac{0}{0}$ $\frac{00}{00}$ $\frac{0}{0}$ $\frac{00}{00}$

$\frac{0}{0}$ $\frac{00}{00}$ $\frac{0}{0}$ $\frac{00}{00}$

☐ = ☐

9 in

I see someone coming.

Drawing 2

7.5 in

3 in 6 in

B 5 in

Will they remember me?

C 5 in

10.25 in

D 5 in

9.25 in

Note: Images not drawn to scale.

NEXT >
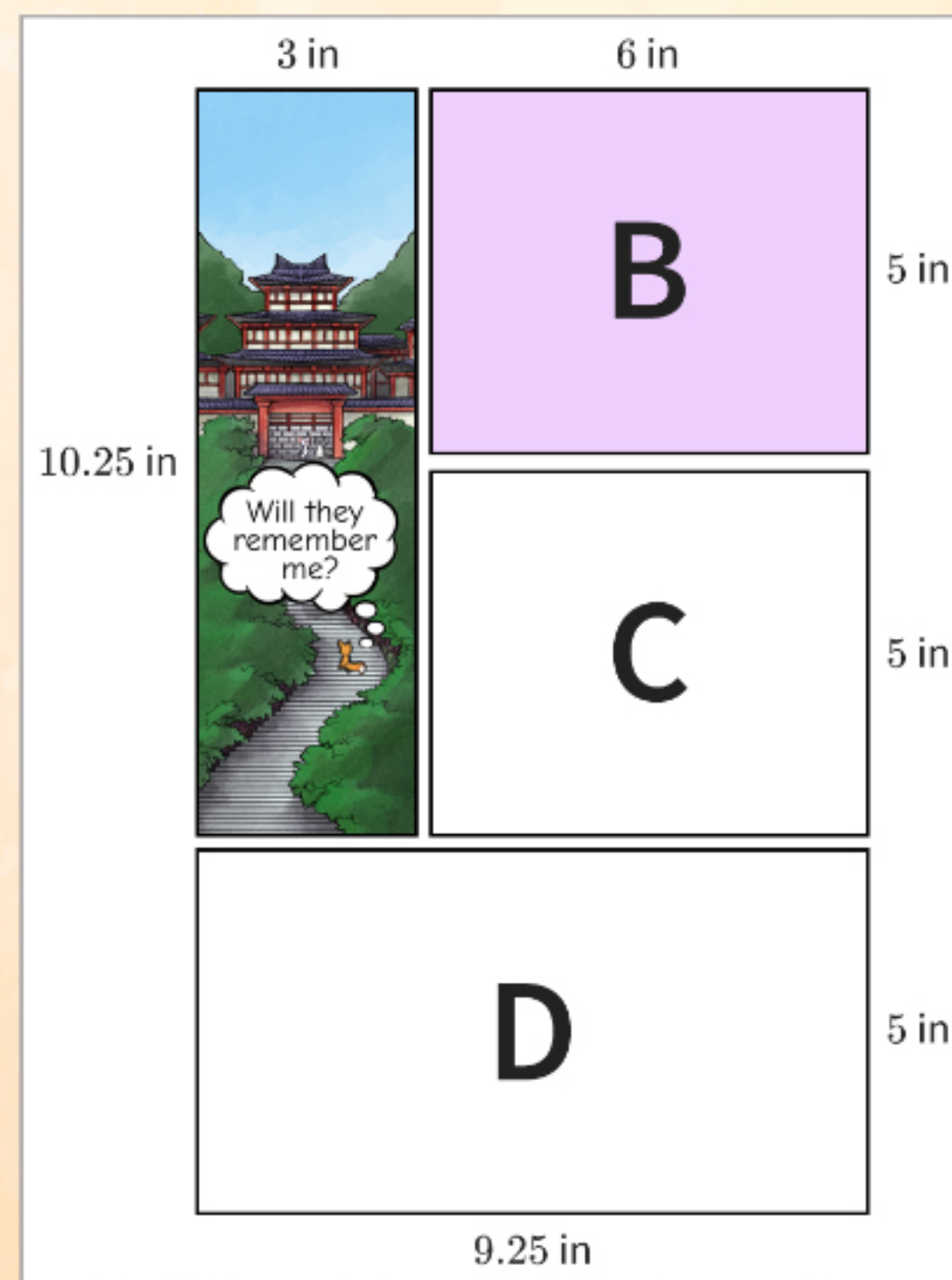
Ms. Medley

I updated our storyboard with art in Panel C, but it's missing the mouse character.

We will include Drawing 3, the image of the mouse, by rescaling it so that it fits vertically. After rescaling, the height of Drawing 3 will be 5 inches and its width will be w inches.

First, let's determine the value of w.

Which of the following equations can be used to determine the value of w?

- ○ $0 = 0000000$
- ○ $0 = 0000000$
- ○ $0 = 0000000$
- ○ $0 = 0000000$

6 in

8 in

Drawing 3

3 in   6 in

10.25 in

I see someone coming.

Will they remember me?

5 in

5 in

D

5 in

9.25 in

Note: Images not drawn to scale.

NEXT >

Here is what you have done so far.

Let's finish up the storyboard by working on Panel D.

Ms. Medley

Select **Next** to continue.
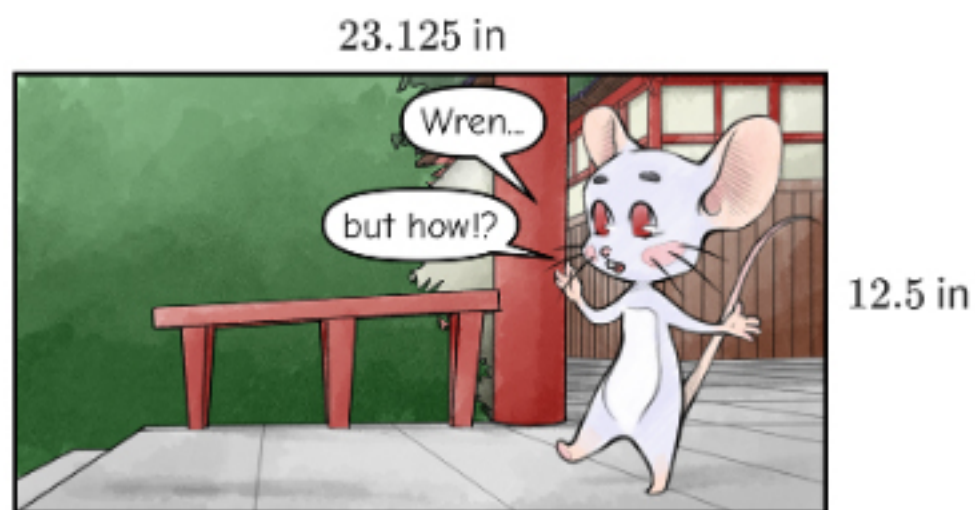

Note: Images not drawn to scale.

NEXT >

Ms. Medley

Drawing 4 is proportional to Panel D but needs to be rescaled so that it fits.

23.125 in

12.5 in

Drawing 4

By what percent should Drawing 4 be scaled so that it fits exactly into Panel D?

[   ] %

3 in

6 in

5 in

10.25 in

Will they remember me?

I see someone coming.

Who goes there?

5 in

D

5 in

9.25 in

Note: Images not drawn to scale.

NEXT >

Ms. Medley

Your project is complete. Great job!

✔ 1. Create a character using guidelines that I will provide.

✔ 2. Use the character to create a one-page storyboard.

Thank you!

I hope you had fun.

NEXT >