1) Write a Steps to changing image resolution in photoshop elements

CHANGING IMAGE RESOLUTION IN PHOTOSHOP ELEMENTS

To change the image resolution follow the instructions below:

Step 1. Select the command **Image - Resize - Image Size** from the **Adobe Photoshop Elements** menu.

Step 2. Activate the check-box Resample Image, if you want to keep the image dimensions (Document Size). If you want to keep the total amount of pixels (Pixel Dimensions), you should deactivate the check box. In this case the width and the height will change, while the total amount of pixels will stay the same.

Step 3. Enter a new value into the field Resolution.

Step 4. Press the button OK.

Save Workspace in Adobe Photoshop

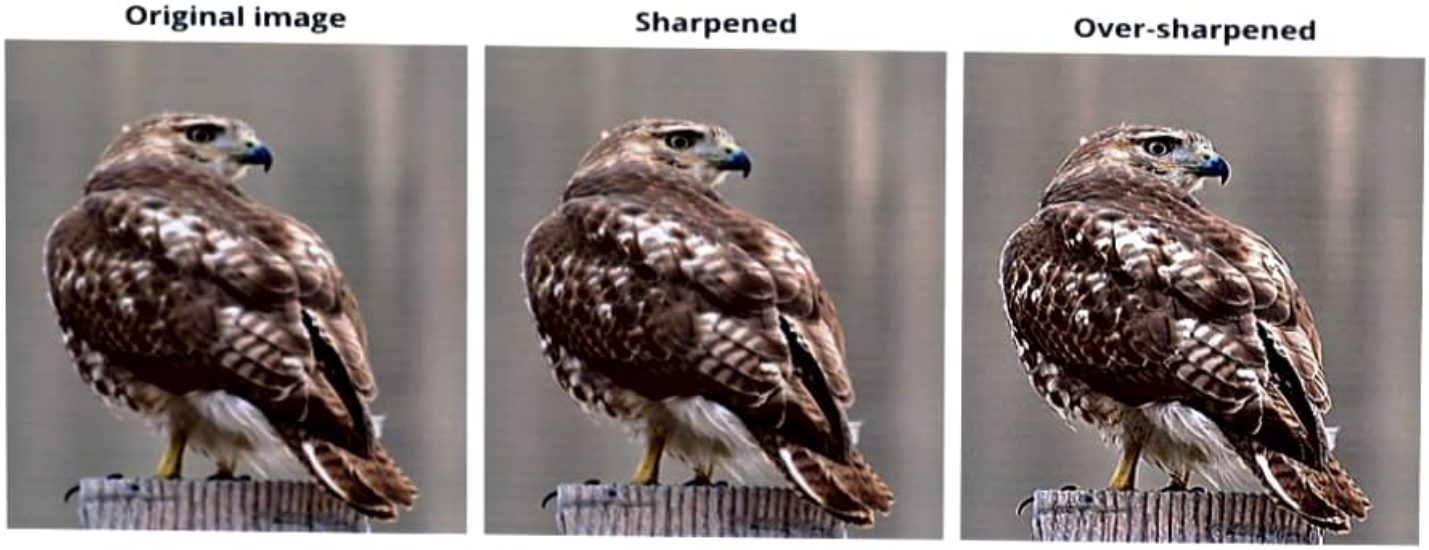
2) Explain Sharpening And Noise Reduction.

SHARPENING AND NOISE REDUCTION

Photoshop includes several tools you can use to correct your images. **Sharpening**: If an image is **less clear** than you'd like it to be, you can **sharpen** it.

- **Noise reduction**: If an image has a lot of **noise**, or graininess, you can **reduce the image noise**.

Sharpening can help make it look crisp and clear by **enhancing the edges** of objects in the image. However, adding too much sharpness can actually make an image look worse, or it can lead to a loss in image detail.



As you can see, the right amount of sharpness makes the photo look crisp. For example, in the center image it's easy to see the edges of the bird's feathers. Adding too much sharpness can cause the edges to look exaggerated and unnatural (these are known as **halos**), as in the image on the right. You may have also noticed that the background in the over-sharpened image has a lot of added **image noise**, or graininess.

3) Explain How to Resize the Canvas using Crop Tool.

RESIZE THE CANVAS USING THE CROP TOOL

You can use the Crop tool to resize the image canvas.

1. From the toolbar, select the Crop Tool . Crop borders display on the edges of the image.

2. Drag the crop handles outwards to enlarge the canvas. Use the Alt/Option modifier key to enlarge from all sides.

3. Press Enter (Windows) or Return (Mac OS) to confirm the action.

To resize the canvas, you can also choose **Image > Canvas Size**.

4) Explain Unsharp Mask

UNSHARP MASK

The **unsharp mask** filter is a common way to sharpen images in Photoshop.

- **Amount**: The amount determines **how much sharpness** will be applied. The amount you'll need depends on several factors, including the overall image size, so it's good to experiment with this setting.
- **Radius**: The radius controls the **size** of the details that will be sharpened, so it's generally best to use a **very low value** for this setting. We recommend a radius between **0.3** and **0.5** for most images, although you may find it useful to use a slightly larger radius (between 1 and 1.5) for higher-resolution images.
- **Threshold**: Sharpening tends to make **image noise** more visible. Increasing the threshold can help to reduce this by telling the unsharp mask to **ignore certain parts of the image**. However, this can also mean that different parts of the image are not

sharpened consistently. This is why we recommend keeping this setting at **0** most of the time, unless the sharpening is creating a lot of extra noise.

5) Define Scener and object

SCENES

A **scene** is a single event or conversation between characters, occurring during one period of time and in one single place, that moves the story forward toward a climax and resolution. One event, one period of time, one place!

OBJECT

In an **Object** Drawing mode, **Animate** creates each shape as a separate **object** that you can individually manipulate, similar to when **objects** are grouped. When a drawing tool is in **Object** Drawing mode, the shapes you create with it are self-contained.

6) List out different types of Animation and Explain it.

TYPES OF ANIMATION

5 Forms of Animation

- Traditional Animation.
- 2D Animation.
- 3D Animation.
- Motion Graphics.
- Stop Motion.

1. Traditional Animation

Traditional animation can also be referred to as cell animation. This type of animation requires the animator to draw every single frame by hand to create an animated scene. This is usually done on a light table that allows the artists to see the previous drawing through the top layer of paper. Wellknown companies like Disney are known for using this type of animation.

2. 2D Animation

2D animation refers to vector-based animations similar to the ones used in Flash. This style of

animation has been growing in popularity because the technology is so accessible. Although artists have the option of editing frame by frame, vector-based animation gives the artist the option to create rigs for the characters and move single body parts at a time rather than constantly redrawing the characters. It gives more flexibility to beginners in animation because they don't have to rely so heavily on drawing skills.

3. 3D Animation

3D animation is also known as computer animation and it is currently the most commonly used form of animation. The process of 3D animation is very different from the traditional style but they both require the artist to share the same principles of movement and composition in animation. 3D animation has less to do with drawing and more to do with moving a character in a program.
The National Science Foundation emphasizes how heavily 3D animators must rely on physics to create realistic animations. The animator creates keyframes or specific movements and lets the computer fill in the rest.

4. Motion Graphics

Unlike the previously mentioned types of animation, motion graphics are not driven by characters or storylines. This art form focuses on the ability to move graphic elements, shapes, and text. This process is commonly used for things like television promotions, explainer videos, and animated logos. The skillset necessary for the other types of animation doesn't apply to motion graphics because there's no need to mimic body movement or facial expressions. Advertisements rely heavily on motion graphics and present plenty of career opportunities.

5. Stop Motion

Stop motion animation is very similar to traditional animation because it combines a series of still images that are slightly different to show movement. The largest difference is that stop motion uses photography and captures real objects. With stop motion, the artists take a photo of an object or scene and slightly moves the objects before taking another photo. The artist repeats this process until the scene is completed and uses each photo as a frame in the animation. It's similar to a flipbook with photos.

F5 Define Dope Sheet.

the camera operator on how the **animation** is to be shot.

DOPE SHEET

The **Dope Sheet** is inspired by classical hand-drawn animation process, in which animators will make use of a chart, showing exactly when each drawing, sound and camera move will occur, and for how long. This is **called** an exposure **sheet** or '**dope sheet**'

TEXTURING IN ANIMATION

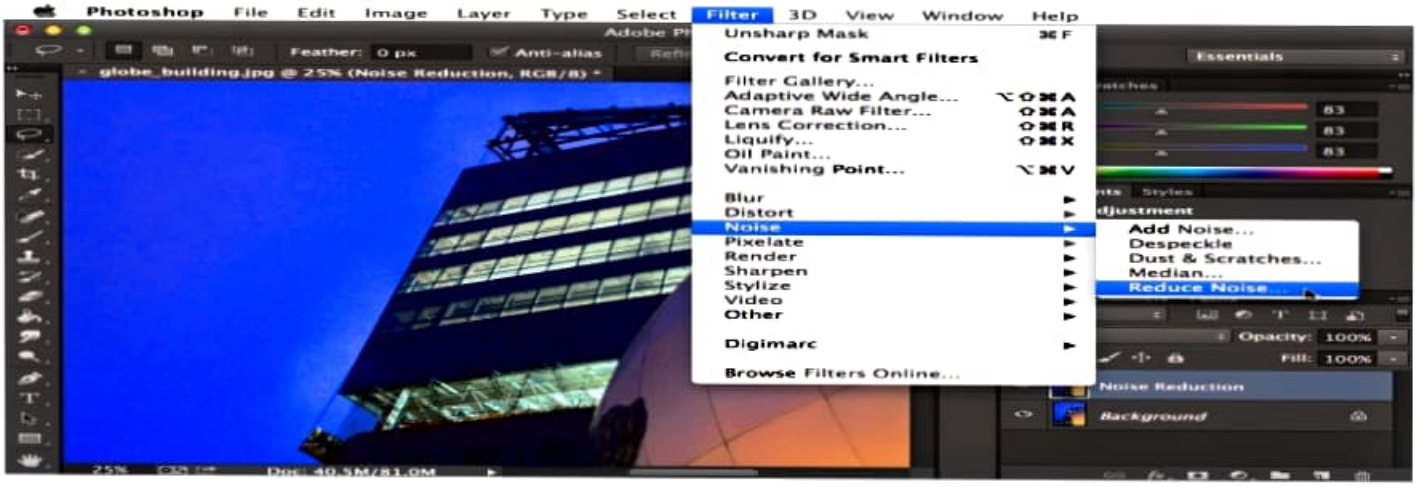
8) Write a steps to Apply Noise Reduction

TO APPLY NOISE REDUCTION:

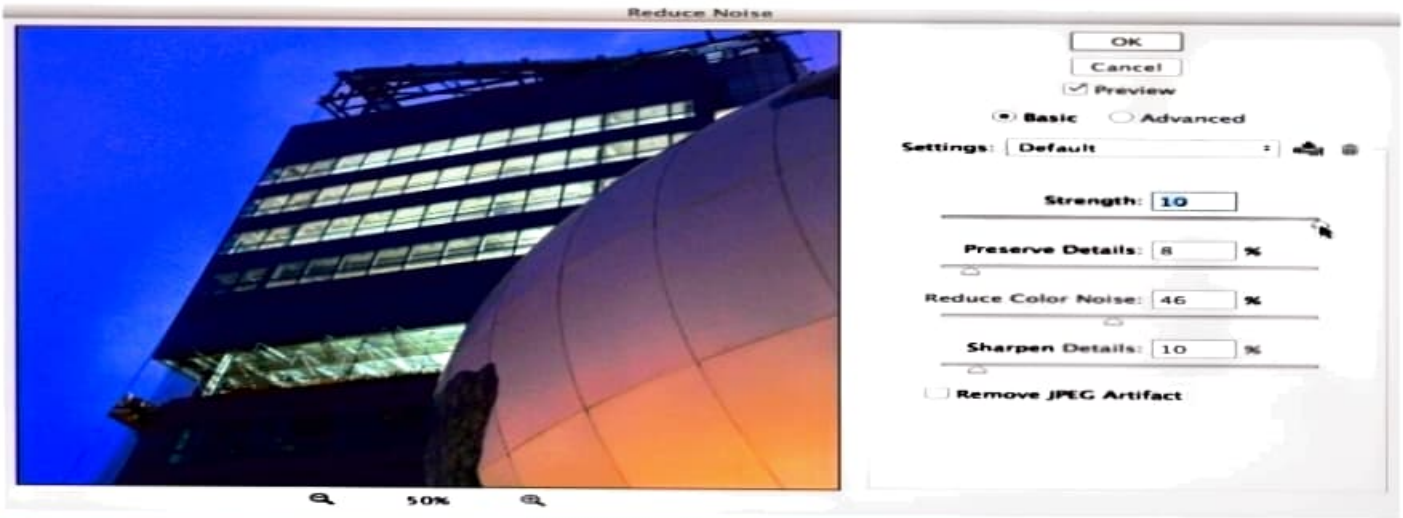
1. Right-click the desired layer, then select **Duplicate Layer**. You'll apply the noise reduction to this duplicate layer, which will prevent you from accidentally altering the original.

2. A dialog box will appear. Type a **name** for the duplicate layer, then click **OK**. In this example, we'll call it **Noise Reduction**.

3. With the new duplicate layer selected, go to **Filter > Noise > Reduce Noise**.



4. A dialog box will appear. Take some time to adjust each setting, following the guidelines above. You can look at the **preview window** to the left of the sliders to see the effect.



5. Click the preview window to toggle the preview **off** and **on**. This is an easy way to compare the noise reduction with the original. To view a different part of the image, click and drag within the preview window. Note that you'll also see the preview in the main **document window**.

6. Continue to adjust the settings until you're satisfied with the results, then click **OK**. The noise reduction will be applied.

9) Write the 12 principles of Animation and Explain any 4.

THE 12 PRINCIPLES OF ANIMATION

In the last century Disney animators invented 12 basic laws and principles of animation. Knowing and practicing them will not only help you to create animation, but will also make your animation more appealing and alive.

1. Squash and Stretch
2. Anticipation
3. Staging
4. Straight Ahead Action and Pose to Pose

5. Follow Through and Overlapping Action
6. Slow-in and Slow-out
7. Arcs
8. Secondary Action
9. Timing
10. Exaggeration
11. Solid Drawing and Solid Posing
12. Appeal

1. Squash and Stretch – The squash and stretch principle gives the illusion of weight and volume to a character as they move. This is done by expanding and compressing the character's body. To see the principle in action, take a look at this scene from the Pixar short *Day and Night*. Notice how as the two characters dance around, their shapes compress ever so slightly and then stretch back into shape. As a result, we as an audience actually believe that they are dancing because we see the impact that gravity has on their bodies.

2. Anticipation – Anticipation is used to let the audience know that a major action is about to take place. To do this, animators will often work in a smaller action or two, right before the major action to signal that something is coming. Notice how Thumper draws back his leg before breaking into a run? This is anticipation in action!

3. Staging – Staging is the principle that every pose or action that a character makes should convey a clear intention. Take these images of Tinker Bell for instance. If you were to isolate Tink and make a silhouette of each of her poses, you would still be able to get the idea that Tink is overjoyed in the first pic, annoyed in the second pic, and feeling the zzzs in the final.
Staging also applies to the movement and placing of the camera. In this scene from *Finding Nemo*, the swirl of the water directs the audience to the totally sweet action where they are supposed to be looking in that moment.

4. Straight Ahead and Pose to Pose – Straight ahead and pose to pose refers to the techniques by which animation is crafted. The pose to pose technique involves drawing the key poses that you'd like the character to take first and then filling in the transitional poses second. The straight ahead technique is more nuanced and involves an animator literally crafting one frame after another, as in this early draft of an iconic *Cinderella* scene.

Straight ahead is better for creating fluid, realistic actions while pose to pose is more effective for dramatic or emotional scenes where it's more about conveying an idea than a sense of realness.

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5. Follow Through and Overlapping Action – The follow through principle argues that when a character is in action and stops, nothing stops all at once. So when a character is running and stops, their main body will stop, but the other parts of their body will keep moving for a bit after. For instance, in this scene, Mulan's head stops first and then her hair.

Tied to this idea is the overlapping action principle, which expresses the idea that if a character is in motion, some parts of the character move faster than others. In this *Tangled* scene, notice how Rapunzel's hair moves faster than her body.

6. Slow-In and Slow-Out – Slow-in and slow-out is another principle designed to add realism to the movement of characters. When characters are performing actions, animators will draw more frames at the start of the action, less frames in the middle, and more frames again at the end of the action to create this slow-in/slow-out effect. (Kind of like a pendulum!) Notice how Snow White's actions in this scene are slow at the beginning and fast in the middle and then slow at the end.

7. Arc – The arc principle is that almost all actions in life have a slightly circular motion. When a head turns or an arm moves, rarely will it thrust straight in and straight out. Often it will have a little curve to it. This Mickey GIF does a great job of illustrating this!

8. Secondary Action – A secondary action is an additional action that reinforces and adds more dimension to the main action. The main action in this scene is Bolt's mouth and the carrot, but the animators also threw in some adorable secondary leg action to reinforce the cuteness of the scene.

9. Timing – Timing helps create the illusion that an action is abiding by the laws of physics. By adjusting the timing of a scene, animators can make that scene look either slower and smoother (with more frames) or faster and crisper (with less frames).

10. Exaggeration – Exaggeration is all about overstating certain movements in a way that helps evoke a point, yet doesn't ruin the believability of the scene. As you can probably guess from the previous GIFs, Disney is pretty darn good at this. But just in case you forgot, and also because we can't help ourselves, here's another prime example.

11. Solid Drawings – This principle encourages animators to be mindful of the fact that while forms may be presented in 2D, they should strive to look 3D. In this example, despite being drawn in 2D, through the animation choices we as an audience feel that Zeus has weight and is three-dimensional.

12. Appeal – Obviously, not every character should be appealing. But this principle posits that animators should strive to create images that will be interesting and compelling to audiences.

10> Explain Texturing in Animation.

how long. This is **called** an exposure **sheet** or **dope sheet**

TEXTURING IN ANIMATION

Texturing is the process of applying an image to a 3D model. Textures are the flat images that

are applied to a model to give it colour and detail rather than them being blank and boring

3D LIGHTING

3D Lighting is the collection of tools and techniques used to simulate light in a computergenerated 3D environment. 3D Lighting techniques offer a huge amount of flexibility regarding the level of detail and functionality. They also operate at different levels of complexity. Lighting artists can choose from a variety of light sources, effects, tools, and techniques that suit their needs.

RENDERING

Rendering is the act of converting the scene information into a bitmap image by evaluating all the geometry and **lighting** information in a given file. ... Occasionally, you only need a subset of the full evaluations, such as the diffuse color layers without any shadows. **Rendering** is used in both 2D and 3D computer **animation**. It is the process of getting the final assembled **animation** scenes or pieces out of the computer in the format of a sequence of individual frames. The aim of **rendering** is to generate a series of individual pixel based frames or a video clip.

3D DYNAMIC

Dynamics are an extremely powerful feature in any **3D** application. ... **Dynamics** are a complex physics engine inside your **3D** application; **dynamics** describes how objects move using rules of physics to simulate real-world forces.