Unit 2

Working with image selections

Unit time: 60 minutes

Complete this unit, and you'll know how to:

A Use various tools to select image areas.

B Modify and manipulate selections.

Topic A: Selection techniques

This topic covers the following Adobe ACE exam objectives for Photoshop CS3.

#	Objective
4.1	Create and modify selections by using the appropriate selection tool. (Selection tools include: Quick Selection, Lasso, Magic Wand, Marquee.)
4.2	Save and load selections.
4.4	Create and modify selections by using the Channels palette.

Selection tools

Explanation

If you want to manipulate or modify just a portion of an image, you'll have to select that portion. After you select the part of the image you want to work with, you can move it, change its color attributes, or apply any number of effects to it.

The technique you use to select part of an image will depend on the attributes of the area you want to select. The following table lists several Photoshop selection tools, along with the type of image areas each tool is best suited to select.

Selection tool	Icon	Description
Rectangular Marquee		Selects square or rectangular areas.
Elliptical Marquee		Selects circular or elliptical areas.
Lasso		Selects irregularly shaped, curving areas.
Polygonal Lasso		Selects irregularly shaped areas made up of straight lines.
Magnetic Lasso		Selects areas whose edges contrast with the abutting area.
Quick Selection		Automatically detects and selects areas based on defined edges in the image.
Magic Wand		Selects areas that contrast with other image areas.

The Rectangular and Elliptical Marquee tools

You can select rectangular or elliptical areas by dragging the Rectangular Marquee or Elliptical Marquee tools. After you drag to create a selection, a marquee appears around the selection. By default, the pointer for the marquee tools appears as a cross. However, if you point inside the selection with one of the marquee tools, the pointer changes to a white arrowhead next to a dotted rectangle, indicating that you can drag to reposition the selection marquee. When a selection tool is selected, you can also press the arrow keys to move a selection marquee in small increments.

After you specify a selection, you can apply commands that affect only the pixels inside the selected area. If you want to apply a command to the entire image, you need to deselect the selection. You can choose Select, Deselect to deselect an image area. If you find yourself deselecting often while you work, you might want to use the keyboard shortcut, Ctrl+D.

You can press a modifier key to change how the Rectangular and Elliptical Marquee tools work, as follows:

- To constrain a selection to a perfect square or circle, press Shift as you drag.
- To select from the center outward, press Alt as you drag.
- To move the marquee as you create it, press Spacebar as you drag.

Do it!

A-1: Selecting rectangular and elliptical areas

Here's how	Here's why
1 Navigate to the current unit folder, and open Nutmeg label	(Choose File, Open.) You'll copy the Outlander Spices logo for use in another image.
2 Choose **File**, **Save As...**	To open the Save As dialog box.
Edit the File name box to read **My nutmeg label**	
From the Format list, select **Photoshop (*.PSD;*.PDD)**	To save the image as a native Photoshop file.
Click **Save**	To save the image in the current unit folder.
Click **OK**	(If necessary.) To close the Photoshop Format Options dialog box.
3 Press (ALT) + (CTRL) + (0)	To set the view to Actual Pixels.
Press (F)	To switch to Maximized Screen Mode.
4 In the Tools palette, click ⬚	To select the Rectangular Marquee tool.
Point above and to the left of the words "Outlander Spices"	
Begin dragging down and to the right, as shown	

Sometimes it's difficult to tell where to begin a selection, and you might want to change the selection marquee's position without starting over. You can move the selection marquee as you're making the selection.

5 Press (SPACEBAR)   While holding the mouse button to maintain the
                                             selection marquee.

   Drag the selection marquee   Move it to the left to include the red chilies and
                                             part of the "O" in Outlander.

6 Release (SPACEBAR)   Without releasing the mouse, to continue to
                                             make the selection.

   Drag down and to the right, as   To surround the logo with a selection marquee.
   shown

                                             You could copy this selection and paste it into
                                             another image.

7 Press (CTRL) + (D)   To deselect the area.

                                             Next, you'll create a selection marquee and
                                             move it. This method is useful if you want to
                                             make two selections that are exactly the same
                                             size. You could select the first area, copy and
                                             paste it into another image, and then move the
                                             selection marquee to another area in the original
                                             image and copy and paste it as well.

8 Create a selection marquee as
   shown

   Point inside the marquee as shown

                                             The pointer's appearance changes to indicate
                                             that you can now drag to move the marquee.

   Drag the marquee to the logo   (At the top of the image.) If you drag the
                                             marquee to within a few pixels of the top edge
                                             of the image, the marquee snaps to the top edge.
                                             You'll use the arrow keys to nudge the marquee
                                             in small increments.

9 Press ⬇ several times   (As necessary.)

Outlander Spices

To vertically center the selection marquee over the logo.

Deselect the selected area   (Press Ctrl+D.) Next you'll make an elliptical selection.

10 In the Tools palette, click and hold [ ]   To display the other marquee tools.
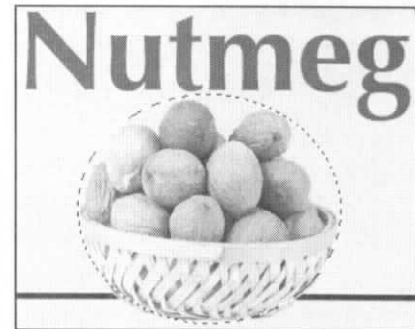
From the marquee tool group, select the **Elliptical Marquee Tool**   The Elliptical Marquee tool now replaces the Rectangular Marquee tool in the Tools palette.

You'll draw an elliptical marquee around the nutmeg in the image.

11 Point above and to the left of the bowl of nutmeg in the image

Drag down and to the right

Nutmeg

To surround the nutmeg with an elliptical selection marquee.

You can often make a more precise selection with an elliptical marquee if you create the marquee from the center of the selection.

Deselect the selected area   Press Ctrl+D.

12 Point to the center of the nutmeg

Press and hold (ALT), and drag down and to the right	To create an elliptical marquee around the nutmeg. The marquee forms from the center.
While still pressing the mouse button and (ALT), press (SPACEBAR) and drag	To move the marquee while you're creating it. Release Spacebar and drag if you want to continue adjusting the marquee size.
Press and release (SPACEBAR) and drag	(As necessary.) To finish drawing the elliptical marquee around the nutmeg.

13 Deselect the selected area of the image

14 Choose **File**, **Save**	To update the image.
Press (CTRL) + (W)	To close the image.

The Lasso tool

Explanation

You can use the Lasso tool to select irregularly shaped areas. To select an area of any shape, select the Lasso tool and drag in one continuous motion along the border of the area you want to select. When you release the mouse, Photoshop will automatically connect the ending point with the starting point to complete the selection.

When making a selection with the Lasso tool, you might also want to draw a straight line as part of the selection. You can combine the freehand selection and straight-edged segments by doing the following:

1 With the Lasso tool selected, begin making a freehand selection.
2 When you want to begin a straight-edged segment, press Alt and release the mouse to temporarily select the Polygonal Lasso tool.
3 While holding Alt, drag to where you want the straight-edged segment to end.
4 Click and hold the mouse to complete the straight-edged segment.
5 Release Alt (while holding the mouse) to continue drawing with the Lasso tool.

This is also a good technique to use if you need to pick up your mouse while you're making a selection—for example, if you're drawing with the Lasso tool and you reach the bottom of your mouse pad but need to draw farther down in the image. Press Alt; release the mouse and reposition it on the mouse pad; click and hold the mouse; and then release Alt and continue drawing the selection.

Do it!

A-2: Selecting with the Lasso tool

Here's how	Here's why
1 Open Baby toes	From the current unit folder.
Save the image as **My baby toes**, using the Photoshop format	
2 In the Tools palette, click ⬭	(The Lasso tool.) You'll use the Lasso tool to select the baby's feet.
3 Point to the top of the big toe on the baby's right foot	
Drag around the edges of the feet	To select an area the same shape as the feet.
	If you need to reposition the mouse while making the selection, press Alt, reposition the mouse, click and hold the mouse, release Alt, and continue drawing the selection.
When you reach the starting point of the marquee, release the mouse button	
	You'll save this selection in the next activity.
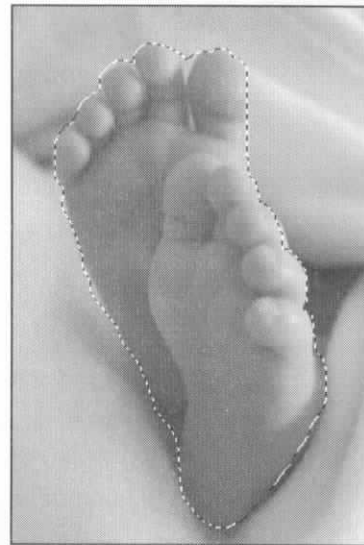
Saving and loading selections

Explanation

After you select part of an image, you might want to choose the same area again later. To be able to do this, you can save the selection. After saving a selection, you can deselect it and then load it again at any time.

A saved selection is stored in the Channels palette, as shown in Exhibit 2-1. The Channels palette stores color information about an image, as well as selections. Additional channels you add to the Channels palette are known as *alpha channels*. The white part of an alpha channel represents the part of the image that will be selected when you load the channel.
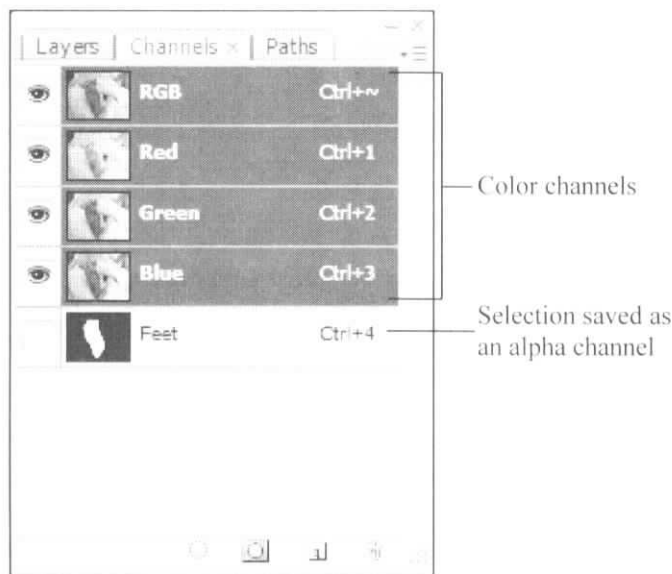

Exhibit 2-1: A selection stored in the Channels palette

There are two ways you can save the current selection:

- Choose Select, Save Selection to open the Save Selection dialog box. Enter a name for the selection, and click OK.
- At the bottom of the Channels palette, click the "Save selection as channel" button.

After you deselect a selection, you can load it again. Here are two ways to do so:

- Choose Select, Load Selection to open the Load Selection dialog box. From the Channel list, select the saved selection you want to load, and then click OK.
- In the Channels palette, press Ctrl and click the thumbnail next to the alpha channel you want to load as a selection.

Do it!

A-3:   Saving and loading a selection

Here's how	Here's why
1 Choose **Select**, **Save Selection...**	To open the Save Selection dialog box.
In the Name box, enter **Feet**	
Click **OK**	To save the selection. After you have saved a selection, you can load it at any time.
2 Deselect the current selection	
Choose **Select**, **Load Selection...**	To open the Load Selection dialog box. "Feet" is already selected in the Channel list.
Click **OK**	To load the selection.
Deselect the current selection	Another way to load a selection is to select it from the Channels palette. Each selection is saved as a separate channel.
3 In the Layers palette group, activate the Channels palette	(Or choose Window, Channels.) The selected area is represented by the white portion of the Feet channel.
4 Press and hold ⬚ CTRL ⬚, and click the Feet channel thumbnail in the Channels palette	
	To load the selection. When you press Ctrl and point to the channel, the cursor changes to indicate that you'll load the selection.
5 Update and close My Baby toes	Choose File, Save, and then press Ctrl+W.

The Polygonal Lasso tool

Explanation

The Lasso tool is useful for selecting irregularly shaped image areas. However, if you need to select an irregularly shaped area that is made up of straight lines, you should use the Polygonal Lasso tool. To select an image area by using the Polygonal Lasso tool:

1 Click where you want to begin.

2 Point to the end of the first straight segment you want to select, and click.

3 Continue to click at the end of each straight area.

4 When you're finished, point to the spot you first clicked, and click to complete the selection. You can also double-click, and Photoshop will complete the selection automatically.

Just as you can select the Polygonal Lasso tool temporarily while using the Lasso tool, you can also temporarily select the Lasso tool while using the Polygonal Lasso tool. To do so, press Alt and drag. Release either Alt or the mouse to return to the Polygonal Lasso tool.

Do it!

A-4: Selecting polygonal areas

Here's how	Here's why
1 Open Fire alarm	From the current unit folder.
Save the image in Photoshop format as **My fire alarm**	In the current unit folder.
2 Switch to Standard Screen Mode	(If necessary.) Click the Change Screen Mode button and select Standard Screen Mode
Drag the bottom-right corner of the document window down and to the right a little	To show some gray workspace around the image.
	You'll use the Polygonal Lasso tool to select an area that contains straight edges.
3 From the Lasso tool group, select the **Polygonal Lasso Tool**	In the Tools palette, point to the Lasso tool, hold down the mouse button, and then select the Polygonal Lasso tool.

4 Point to the top-left corner of the
   alarm and click
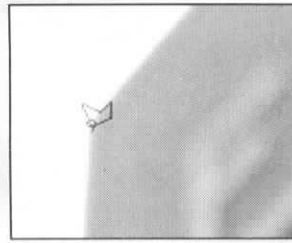
To begin the selection.

Point to the gray area just above
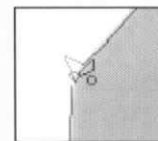the top of the alarm, and click, as
shown
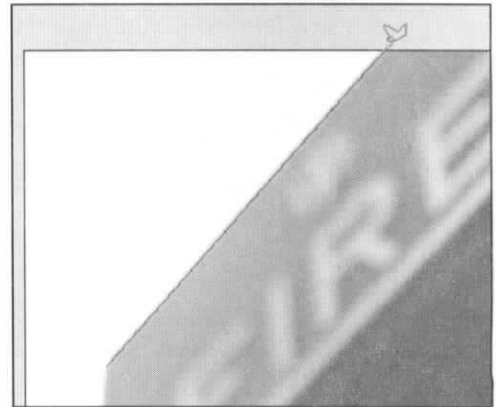
To place the second point of the polygonal
selection area, ensuring that you are selecting all
the way to the edge of the image.

Click the gray area above the top-
right corner of the image

Continue selecting each edge by
clicking in the gray area

5 When the pointer is back to the
   starting point, click the mouse
   button

To complete the selection. Observe that when
the lasso pointer reaches the starting point, a
small circle appears next to the pointer.

6 Save the selection as **Alarm**   Choose Select, Save Selection.

7 Update and close the image

The Magnetic Lasso tool

Explanation

You can select irregularly shaped image areas with the Magnetic Lasso tool, similar to the way you'd use the Lasso tool. As you drag with the Magnetic Lasso tool, however, the selection snaps to areas where it detects high contrast. Therefore, it's useful for selecting image areas whose edges contrast significantly with other areas. When you use the Magnetic Lasso tool, you don't have to drag to create a selection. You can click where you want to begin the selection and move the pointer along the edge of the area you want to select.

You can select the Lasso tool and the Polygonal Lasso tool while using the Magnetic lasso tool. Press Alt and drag to use the Lasso tool, or press Alt and click to use the Polygonal Lasso tool.

Do it!

A-5:   Selecting with the Magnetic Lasso tool

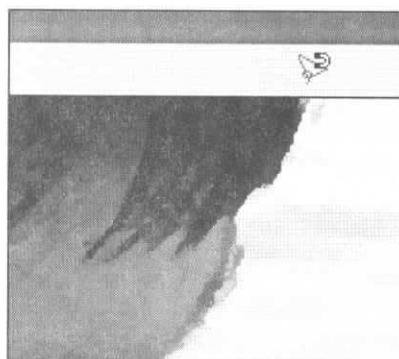| Here's how	Here's why
1 Open Sad child	From the current unit folder.
Save the image in Photoshop format as **My sad child**	In the current unit folder.
2 From the Lasso tool group, select the **Magnetic Lasso Tool**	In the Tools palette, point to the current lasso tool, hold down the mouse button, and select the Magnetic Lasso tool.
3 Enlarge the window	(Drag the bottom-right corner of the image window.) To view gray space around the image.
4 Point to the gray area above the right edge of the child's profile and click, as shown	
Move the pointer along the edge of the child's profile into the gray area below the image, as shown	
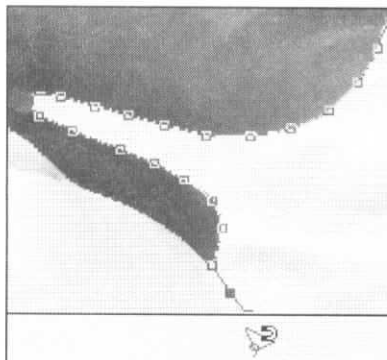
5 Press and hold (ALT)	To temporarily access the Polygonal Lasso tool.
Click the gray area just below the bottom-right part of the image	To place the first point of a straight segment with the Polygonal Lasso.
Point just below and to the left of the image's bottom-left corner, and click	
Click above and to the left of the top-left corner of the image	
6 Release (ALT) and click where you started the marquee	To complete the selection.
7 Save the selection as **Child**	
8 Update and close the file	

Magnetic Lasso adjustments

Explanation

As you move the Magnetic Lasso tool through an image to make a selection, points appear along the path you're creating. These points determine the path's shape. There are several ways to control the points added by the Magnetic Lasso tool:

- To begin making a selection with the Magnetic Lasso tool, click to add the first point.
- Move the pointer along the area you want to select, and the Magnetic Lasso automatically adds points to generate the path.
- To force the path to continue through a specific location, you can click to manually add a point.
- If the most recent point appears where you don't want one, press Delete or Backspace to remove it.

Magnetic Lasso tool options

The Magnetic Lasso tool adds points where it detects the highest contrast within a specified distance around the pointer. By default, the Magnetic Lasso tool operates within a distance of 10 pixels from the pointer. If you want the tool to examine a larger or smaller area around the pointer, you can change the value in the Width box on the options bar. In addition, you can press Caps Lock to display the pointer as a circle that shows the Width area, and you can press [or] to decrease or increase the Width value. When you select the Magnetic Lasso tool, the options bar displays the options shown in Exhibit 2-2, among others.

Width: 10 px   Contrast: 10%   Frequency: 57

Exhibit 2-2: Some options for the Magnetic Lasso tool

You can use the Contrast box to specify how much contrast must exist for the Magnetic Lasso tool to define a path. The higher the Contrast value, the greater the contrast must be for the Magnetic Lasso to define a path along it. In addition, you can adjust the value in the Frequency box to control how often points are added to define the path.
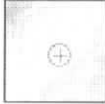
Do it!

A-6: Adjusting Magnetic Lasso tool settings

Here's how	Here's why
1 Open Smiling baby	In the current unit folder.
Save the image in Photoshop format as **My smiling baby**	Save the image in the current unit folder.
2 Select [⊠]	(The Magnetic Lasso tool.) If necessary.
Move the pointer over the image	The pointer looks like the Magnetic Lasso icon.
3 Press (CAPS LOCK)	
	To view the width of the tool instead of the tool icon.
On the options bar, edit the Width box to read **15**	
4 Click to place the initial point for the selection marquee at the top of the baby's head	
Move the pointer clockwise around the baby, as shown	
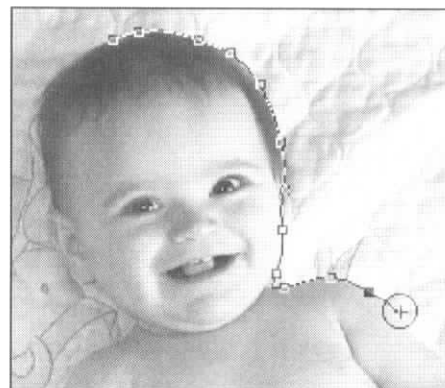
5 Observe that the Magnetic Lasso tool periodically detects the wrong edge, as shown
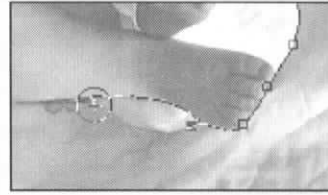
If the Magnetic Lasso tool creates any misplaced points, press (DELETE)

To delete them.

After deleting a point, return to the last correctly placed point, and then move along the correct edge and click periodically

To add points where you want them.

As you approach the left side of the baby, press (I) five times

(The left bracket key.) To decrease the tool's width to 10 pixels. This will help the tool more accurately select the edge you want.

6 Continue to delete and add points

(As necessary.) To accurately select the left side of the baby.

7 When you return to the top of the baby's head, click the first point you created
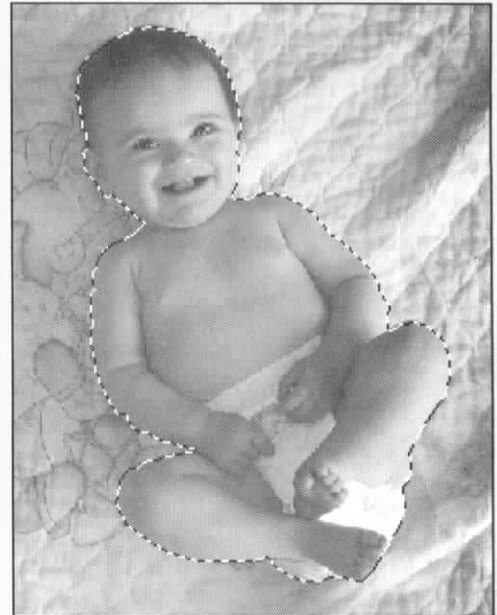
To complete the selection.

8 Press (CAPS LOCK)

To return to viewing the tool icon.

9 Save the selection as a channel named **Baby**

10 Update and close the image

The Quick Selection tool

Explanation

You can select areas defined by clear edges by using the Quick Selection tool. Drag over an area or click to select it. As you drag and select more areas of the image, the Quick Selection tool detects similar areas within defined edges and adds them to the selection.

After you've made a selection, you can add other areas or subtract areas you don't want to select. To add to a selection, click the Add to selection button, shown in Exhibit 2-3, and click or drag another area of the image. Areas you add need not be contiguous with the original selection, so you can add an area from another part of the image. To remove a portion of an area you've selected, click the Subtract from selection button and click or drag over the area you want to deselect.

You can increase or decrease the size of the Quick Selection brush by changing the settings in the Brush picker. By doing so, you can select more or less of an area. To quickly adjust the diameter of the brush, with the Quick Selection tool selected, press [or].
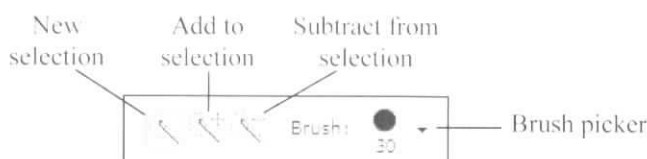
Exhibit 2-3: Some options for the Quick Selection tool

Do it!

A-7:   Selecting with the Quick Selection tool

Here's how	Here's why
1 Open Mountaintop	From the current unit folder.
Save the image in Photoshop format as **My mountaintop**	In the current unit folder.
2 In the Tools palette, select	The Quick Selection tool.
Observe the options bar	The "New selection" button is selected by default.
3 Drag slowly from left to right over the sky area in the image	As you drag, the Quick Selection tool detects areas similar to the one you drag over. As you drag over more areas, the selection expands to include the entire sky.
	Some areas of sky are not selected, however, because they are separated from the selection by a defined edge.
Observe the options bar	After you release the mouse, the "Add to selection" button is selected automatically.
4 Press and hold (CTRL) + (SPACEBAR) and click four times on the indicated area	To zoom to 300%.

5 Observe the tool icon
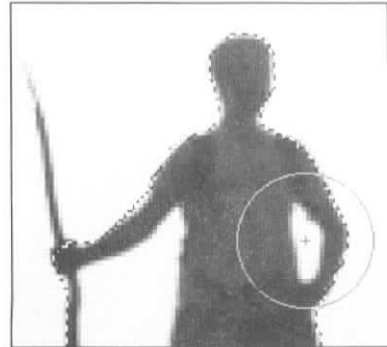
The brush radius is too large to select the small areas you need.

Press ⬚ 10 times

To reduce the brush radius so that it fits in the area you want to select.

6 Click the indicated area

To add it to the selection.

Add the other areas of the sky to the selection

Drag over the areas.

7 Observe the stick the man is holding

Because it's a small area, it was included in the original selection. You can remove areas from a selection, if necessary.

On the options bar, click ⬚

The "Subtract from selection" button.

Press ⬚ three times

To reduce the brush size to 1.

Carefully drag upward from the man's hand to select the stick

8 Save the selection as a channel named **Sky**

9 Update and close the image

Color-based selections

You can use the Magic Wand tool to select areas based on the similarity of pixel color and brightness. All pixels in an image are assigned brightness values from 0 to 255, with 255 being the brightest. In a grayscale image, each pixel has one value between 0 and 255. In a color image, each pixel can have several brightness values—one for each component color used by that pixel. For example, each pixel in an RGB (red, green, blue) image has three brightness values: one for the red component, one for green, and one for blue. When you use the Magic Wand tool to click a pixel, you select that pixel, along with other image pixels within a specific range of color and brightness values.

Magic Wand tolerance

You specify the range for the Magic Wand tool by entering a value in the Tolerance box on the options bar, shown in Exhibit 2-4. The higher the Tolerance value, the wider the range of pixels you will select. For example, if you set the Tolerance to 10, you can click a pixel to select all pixels with matching color and brightness values, as well as all pixels whose values range from 10 levels lower to 10 levels higher.

By default, the Magic Wand tool selects only pixels surrounding the one you clicked. If you want to select all image pixels within the specified tolerance range, clear the Contiguous check box on the options bar.

Tolerance: 32   ☑ Anti-alias   ☑ Contiguous   ☐ Sample All Layers

Exhibit 2-4: Some options for the Magic Wand tool

Anti-aliasing

By default, each selection tool uses *anti-aliasing*, which softens a selection's edges by applying varying levels of transparency to the pixels along those edges. If you don't use anti-aliasing, then when you move a selection to another image, for example, the edges of the selection might appear jagged over the new background. If you want to turn off anti-aliasing for a selection tool, you can clear Anti-alias on the options bar.

Filling selected areas

After you select part of an image, you can fill it with a color, such as the current foreground or background color. The Tools palette shows the current foreground and background colors, as shown in Exhibit 2-5. If you want to add the current foreground or background color to a selection, you can use several techniques:

- Choose Edit, Fill to open the Fill dialog box. From the Use list, select Foreground Color or Background Color, and then click OK.
- Press Delete or Backspace to fill a selection on the Background layer with the background color.
- Press Ctrl+Delete or Ctrl+Backspace to fill a selection on any layer with the background color.
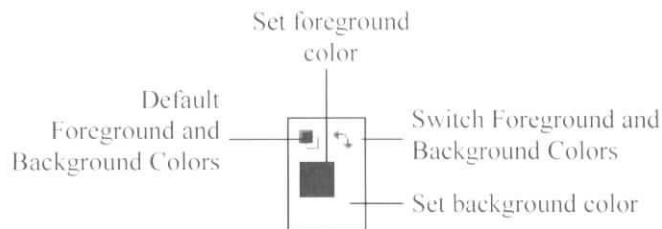- Press Alt+Delete or Alt+Backspace to fill a selection with the foreground color.

Exhibit 2-5: The color indicators and buttons in the Tools palette

Hiding selection edges

After you make a selection, a selection marquee appears along the edge of it. The selection marquee obscures your view of the selection's edges. But it's often important to see the edges to ensure that the selection is accurate. If the selection isn't accurate, any work you perform on it might look sloppy. For example, if you select a fish from an image in which the water is dark blue and you move it to another image in which the water is light blue, a rough selection will make it obvious that the fish came from another image. To hide or show the selection marquee, you can choose View, Extras or press Ctrl+H.

The Select Inverse command

Sometimes the quickest way to select part of an image is to select the part of the image you don't want, and then choose Select, Inverse to select only the part of the image that wasn't selected. For example, to select a multi-colored umbrella on a solid white background, you could use the Magic Wand tool to select the white background, and then choose Select, Inverse to select only the umbrella.

Do it!

A-8: Selecting with the Magic Wand tool

Here's how	Here's why
1 Open Pen	From the current unit folder.
Save the image in Photoshop format as **My pen**	

2   From the Quick Selection tool
group, select the
Magic Wand Tool

3   Click the Magic Wand pointer in
the middle of the pen

All of the contiguous black parts of the pen are
selected, but the other parts are not.

Deselect the selected area

4   With the Magic Wand pointer,
click the white paper color below
the pen

All contiguous elements but the pen and its
shadow are selected.

Deselect the selected area

5   On the options bar, change the
Tolerance value to **75**

You'll increase the tolerance for the Magic
Wand tool so that more of the image will be
selected.

Click the paper color below the
pen

Everything in the image, including the light
shadow, is selected except for the pen.

6   In the Tools palette, observe the
foreground and background colors

The background color, by default, is set to
white.

You'll remove the shadow from the image by
filling the selection with white.

Press ⟮ ← BACKSPACE ⟯

To fill the selected area with white (the current
background color).

Press ⟮ CTRL ⟯ + ⟮ H ⟯

To hide the selection edges.

Press ⟮ CTRL ⟯ + ⟮ H ⟯ again

To show the selection edges again.

Next, you'll select the pen instead of the
background.

7   Choose **Select**, **Inverse**

To invert the selection. The pen is now selected.

8   Save the selection as a channel
named **Pen**

9   Update and close the image

Topic B: Modifying selections

This topic covers the following Adobe ACE exam objectives for Photoshop CS3.

#	Objective
4.1	Create and modify selections by using the appropriate selection tool. (Selection tools include: Quick Selection, Lasso, Magic Wand, Marquee.)
4.3	Modify and preview a selection by using Refine Edge.

Refining a selection

Explanation

It's often impossible to get a perfect selection the first time. Rather than starting over and trying again, you can modify a selection by adding to or subtracting from the selection marquee. When you choose a selection tool, the options bar displays four selection buttons that control the function of the tool, as shown in Exhibit 2-6. When you select the Quick Selection tool, however, the options bar displays the selection buttons shown in Exhibit 2-3.
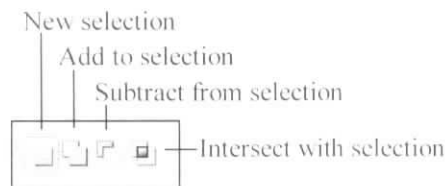

Exhibit 2-6: Selection buttons

The following table describes the selection buttons.

Button	Description
New selection	Clicking or dragging with a selection tool automatically deselects an existing selection and begins a new one. The New selection button is selected by default.
Add to selection	Clicking or dragging with a selection tool selects parts of the image without deselecting the existing selection.
Subtract from selection	Clicking or dragging with a selection tool deselects part of the existing selection.
Intersect with selection	Clicking or dragging with a selection tool creates selections that intersect with existing selections, resulting in a selection made up only of the intersecting regions.

When the New selection button is selected on the options bar, you can refine a selection by temporarily activating the selection button you want.

- Press Shift to temporarily activate the Add to selection button.
- Press Alt to temporarily activate the Subtract from selection button.
- Press Shift+Alt to temporarily activate the Intersect with selection button.

Do it!

B-1: Adding to and subtracting from a selection

Here's how	Here's why
1 Open My nutmeg label	The image that you saved in the Photoshop format earlier.
Zoom to 100% on the picture of the nutmeg	
2 Using the Rectangular Marquee tool, drag a marquee around the picture of the nutmeg, as shown	
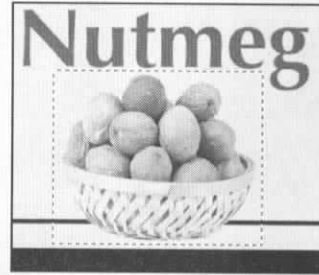
3 In the Tools palette, click	To select the Magic Wand tool.
Set the Magic Wand tool's Tolerance value to **10**	On the options bar.
On the options bar, verify that Contiguous is checked	To make sure that the Magic Wand tool selects only adjoining pixels.
	You'll subtract from the current selection with the Magic Wand tool.

4 Press and hold (ALT) and observe the screen	
	When you press Alt, a minus (-) symbol appears next to the pointer, and the Subtract from selection button is selected on the options bar.
While holding down (ALT), click within the marquee but outside the nutmeg, as shown	
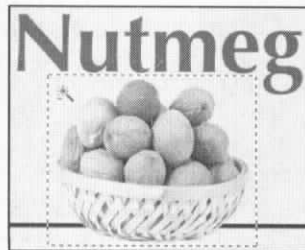
To subtract from the selection.

5 While holding down (ALT), click other selected areas within the original rectangular marquee, but outside the nutmeg

Click the colored background and the black line on either side of the basket to remove the rest of the extraneous areas from the selection. Then release the Alt key.

6 Select the Rectangular Marquee tool

You'll add to the selection.

7 Press and hold (SHIFT) and observe the screen

A plus (+) symbol appears next to the pointer, and the Add to selection button is selected on the options bar.

Drag around the indicated area

To add to the selection.

Press (CTRL) + (Z)

To return to the previous selection.

8 Save the selection as **Nutmeg**

9 Update and close the image
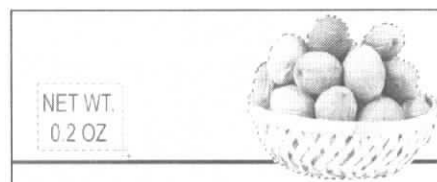
Commands for modifying selections

Explanation   You can use the commands in the Select menu's Modify submenu to change a selection. The following table describes the five commands in the Modify submenu.

Command	Description
Border	Selects only the pixels at the border of a selection, based on the width you specify.
Smooth	Makes a selection's edges more rounded, based on the value you specify.
Expand	Spreads a selection outward by the value you specify.
Contract	Shrinks a selection inward by the value you specify.
Feather	Blends a selection with its background by applying transparency to the selection's outer pixels.

Feathering

By default, Photoshop's selection tools all apply anti-aliasing to soften a selection's edges. However, anti-aliasing softens only the pixels at the very edge of the selection. If you want to soften a larger area, you can apply feathering. *Feathering* blends a selection with its background by applying transparency to the selection's outer pixels. As the feathering extends outward, it becomes increasingly transparent. The feathering isn't apparent until you move, cut, copy, or fill the selection.

You can specify feathering for the lasso tools and marquee tools by entering a value in the Feather box on the options bar. The Feather value you specify won't affect an existing selection but will apply to new selections you make. The feathering extends equally inside and outside the selection edge, as shown in Exhibit 2-7.

Selection edge   Feathering begins inside the selection edge   Feathering extends outside the selection edge
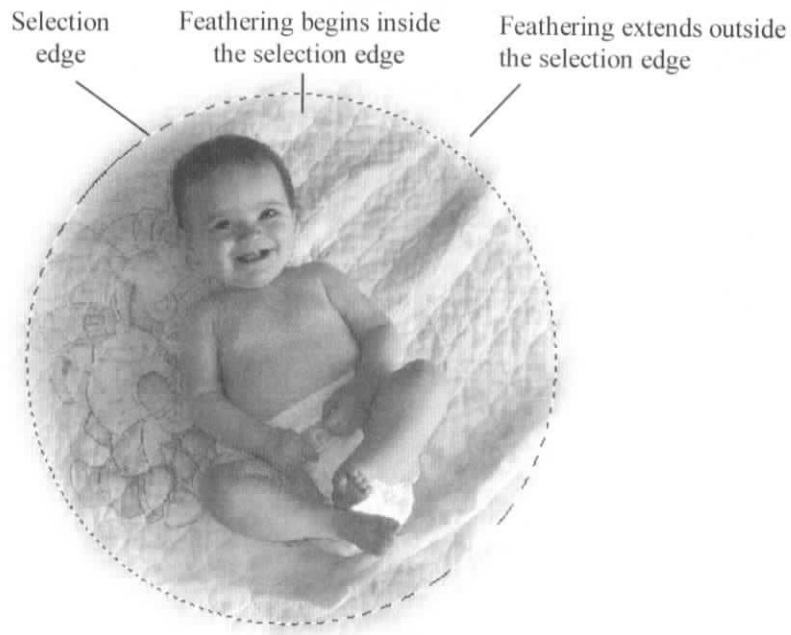
Exhibit 2-7: A selection with a feathered edge

You can also apply feathering to a selection by choosing Select, Modify, Feather and entering a value in the Feather Radius box.

Do it!

B-2: Modifying a selection

Here's how	Here's why
1 Open My smiling baby	From the current unit folder.
2 Select the Elliptical Marquee tool	
On the options bar, edit the Feather box to read **40**	
3 Press and hold (SHIFT) and drag a circular marquee around the baby, as shown	

You'll invert the selection so that the circular area containing the baby is not selected.

Choose **Select, Inverse**	To select only the area outside the circular selection you created.
Press (← BACKSPACE)	To fill the selected area with the current background color (white). You can see the effect of the feathered selection.
4 Choose **Edit, Undo Clear**	To restore the image.
	You will load the selection you saved earlier, and then feather that.
5 Choose **Select, Load Selection...**	To open the Load Selection dialog box.
Verify that Baby is showing in the Channel list	
Verify that New Selection is selected under Operation	
Click **OK**	To load the selection.

6 Choose **Select**, **Modify**, **Feather...**	To open the Feather Selection dialog box.
Edit the Feather Radius box to read **40**	
Click **OK**	To apply the change.
7 Choose **Select**, **Inverse**	To select all of the pixels outside the original selection.
Press (← BACKSPACE)	To fill the area surrounding the baby with white, with a feathered edge. The feathered selection fades part of the baby, and you want the fade to appear only outside the baby's image.
8 Press (CTRL) + (Z)	(Or choose Edit, Undo Clear.) To restore the image again.
9 Deselect the image selection	
Load the Baby selection	Choose Select, Load Selection.
10 Choose **Select**, **Modify**, **Expand...**	To open the Expand Selection dialog box.
Edit the Expand By box to read **40**	
Click **OK**	To move the selection out 40 pixels from the original selection. Now you'll feather the expanded selection.
11 Choose **Select**, **Modify**, **Feather...**	
Edit the Feather Radius box to read **30**	
Click **OK**	To close the dialog box.
12 Choose **Select**, **Inverse**	To select all of the pixels outside the original selection.
Press (← BACKSPACE)	To fill the selection with white (the background color).
13 Deselect the image selection	Because you expanded the selection 40 pixels outside the baby and reduced the feather amount, the feathering doesn't fade the baby.
14 Update and close the image	

The Move tool

Explanation

You can move a selection marquee by using a selection tool to drag from within the marquee. If you want to move the selected pixels themselves, however, use the Move tool to drag from within the marquee.

When you move a selection of pixels on the Background layer, the area previously occupied by the pixels is filled with the current background color. (The current background color is the color shown by the Set background color icon in the Tools palette.)

When you move selected pixels, they become a *floating selection*. A floating selection doesn't replace any pixels below it until you deselect it. Therefore, you can continue moving a floating selection without affecting the pixels below it. When you deselect a floating selection, the selected pixels replace the pixels below it.

Transforming a selection marquee

You can also transform a selection marquee to more closely fit it to the area you want to select. For example, you can rotate or resize a selection marquee. To transform a selection:

1 Choose Select, Transform Selection. Handles appear around the selection.

2 Transform the selection so it fits to the area you want to select, as follows:

- Drag from within the selection to move the selection marquee.
- Drag the selection handles to scale the selection.
- Point outside the selection and drag to rotate the selection.

3 Press Enter to complete the transformation.

Transforming a selection doesn't affect the image; it changes only the shape, size, or angle of the selection marquee itself. If you want to cancel a change you're making, you can press Esc to return to the original selection.

Do it!   **B-3: Moving a selection**

Here's how	Here's why
1 Open My nutmeg label	From the current unit folder.
2 Choose **View, Actual Pixels**	To view the image at 100%.
3 Increase the window size	Drag from the window's bottom-right corner.
4 Select the Rectangular Marquee tool	
Around the text "…adding spice to your life," select a rectangular area extending from the top to the bottom of the black rectangle, as shown	You'll move this tagline to the right of the logo.

...adding spice to your life

5 Drag from inside the marquee	The marquee moves as you drag, but you want to move the selected area itself.
Choose **Edit, Undo Move Selection**	(Or press Ctrl+Z.) To return the marquee to its previous position.
6 In the Tools palette, click ⊞	(The Move tool.) When you use the Move tool to drag a selection, you move the pixels within the selection marquee.
7 Choose **View, Fit On Screen**	To display the entire image at the largest magnification possible.

8 Drag from inside the marquee to the top-right corner of the image, as shown
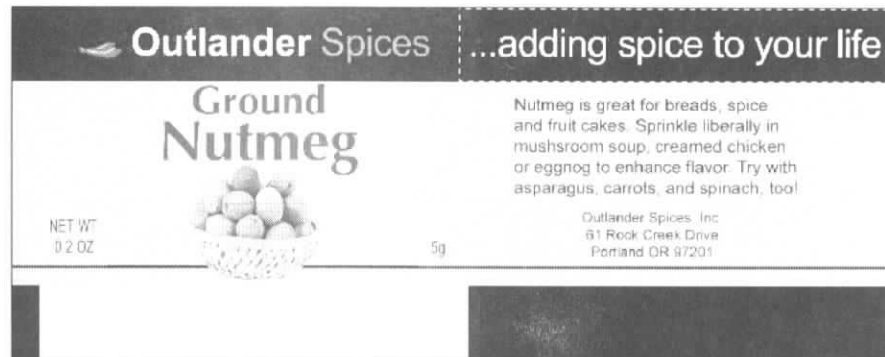
To place the tagline to the right of the logo.

Moving the selected area leaves a white space, because white is the current background color.

Press CTRL + Z

To return the selected portion of the image to its original location.

9 In the Tools palette, click [↕]

To switch the foreground and background colors. The background color is now black.

Drag the selected area to the top-right corner of the image again, as shown

Because the background color is now black, the area left behind by the pixels you moved is filled with black pixels.
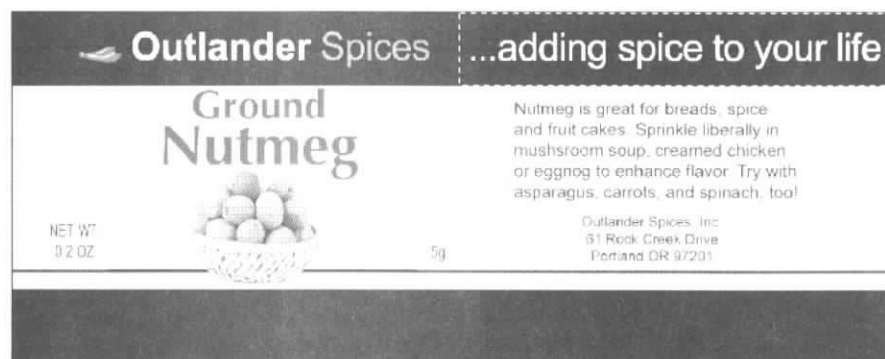
10 Deselect the image

11 Update and close the image

The Refine Edge option

Explanation

Although a selection might appear relatively smooth, it might contain some jagged areas; or the edge of the selection might overlap other areas of the image that you want to leave out. You can modify a selection by adding to it, subtracting from it, expanding and contracting it, and feathering it until you have selected the desired area of an image. However, you might want even more control over the quality of a selection's edges. After you've made a selection, you can fine-tune it by using the Refine Edge dialog box, shown in Exhibit 2-8, to adjust the Radius, Contrast, Smooth, Feather, and Contract/Expand settings.

To begin using the Refine Edge dialog box, first make or load a selection. Then, on the options bar, click Refine Edge. By default, the image changes to show the selection over a white background, hiding the image areas that are not selected. Also by default, the Refine Edge dialog box slightly increases the Radius, Smooth, and Feather settings, making the selection a bit softer.

The following table explains each setting in the Refine Edge dialog box.

Setting	Description
Radius	Adjusts the area around the selection boundary in which edge refinement settings are applied.
Contrast	Sharpens the selection edge. For example, if the Radius setting is high, the selection edge might appear fuzzy; you can increase the Contrast setting to reduce the "noise."
Smooth	Reduces the jagged appearance of a selection edge.
Feather	Blends a selection edge with its background by applying transparency to the selection's surrounding pixels.
Contract/Expand	Reduces or enlarges the selection boundary.

As you're making adjustments in the Refine Edge dialog box, it might help to view the image on different backgrounds. To do so, click the Selection View icons. For example, if the image within the selection is distracting, click the Mask icon to show the selection as a solid white area over a black background.

Selection View icons

Exhibit 2-8: The Refine Edge dialog box

Do it!

B-4: Using the Refine Edge dialog box

Here's how	Here's why
1 Open My baby toes	Earlier, you saved a selection as a channel in this image.
2 Activate the Channels palette	
Press and hold (CTRL) and click the **Feet** channel	To load the selection.
3 Select the Rectangular Marquee tool	To show the Refine Edge button on the options bar.
On the options bar, click **Refine Edge**	To open the Refine Edge dialog box. The selected area appears in the image over a white background.
4 Observe the selection edge	
	In some places, it appears jagged. In others, it overlaps areas of the image you don't want included in the selection.

5 In the Refine Edge dialog box, drag the Radius slider to the right

To increase the radius around the selection boundary, making the edge less defined and thus smoother.

Drag until the selection edge appears smooth

A setting of about 25 makes the selection edge smooth without adding too many fuzzy artifacts, but some artifacts are likely to appear.

6 Increase the Contrast setting until the fuzzy artifacts around the selection edge disappear

A setting of about 30 should eliminate the artifacts.

7 Drag the Smooth slider all the way to the right

To make the Smooth setting 100.

8 Increase the Feather setting so that the selection edge appears slightly softer

A setting of about 10 creates a slightly soft edge but still retains clear detail at the selection boundary.

9 Drag the Contract/Expand slider to the left

To reduce the areas where the selection edge overlaps the background of the image. A setting of between -10 and -30 should remove most of these areas.

10 Click

(The Standard icon.) To view the selection in the image as it would normally appear.

Clear **Preview**

To see the original selection.

Check **Preview**

Click the other Selection View icons

To view the selection in different preview modes. Each mode helps you see different parts of the selection.

11 Click **OK**

To close the dialog box and apply the settings.

12 Save the selection as a channel named **Feet refined**

13 Update and close the image

Unit summary: Working with image selections

Topic A   In this topic, you used the **marquee** tools, the **lasso** tools, the **Quick Selection** tool, and the **Magic Wand** tool to select image areas. You also learned how to fill a selection with the foreground or background color. Finally, you inverted a selection to select only the part of an image that was previously unselected.

Topic B   In this topic, you added to and subtracted from a selection. You also **expanded** a selection and **feathered** a selection. In addition, you used the **Move** tool to move a selection. Finally, you used the **Refine Edge** dialog box to fine-tune a selection edge.

Independent practice activity

In this activity, you'll select image areas and apply color fills. You'll load a selection, expand a selection, apply a feather, and invert a selection. You'll use several tools to create and refine a selection, and you'll save a selection as a channel.

1   Open Baby toes practice (from the current unit folder), and save it as **My baby toes practice**.

2   Create an elliptical marquee with a 60-pixel feather around the feet.

3   Invert the selection, and apply a white background surrounding the toes. (*Hint:* Be sure to switch the background color in the Tools palette so that it's white. Press Backspace to apply the white background.)

4   Use the Undo command to restore the background.

5   Load the Feet selection, expand the selection by 30 pixels, apply a feather of 60 pixels, invert the selection, and set the color of the selected area to white. (*Hint:* Choose Select, Modify, Expand, and enter 30 in the dialog box. After inverting the selection, verify that the background color is white, and press Backspace.)

6   Update and close the file.

7   Open Bird (from the current unit folder), and save it in Photoshop format as **My bird**.

8   Select the bird with the Quick Selection tool, adjusting the brush size as necessary. Add to or subtract from the selection to select as much of the bird as possible without selecting the background.

9   Use the Refine Edge dialog box to fine-tune the selection. (*Hint:* Because the bird is white, you probably won't want to view it on a white background.)

10   Save the selection as a channel named **Bird**. Update and close the image.

11   Open Read the classics, and save it in Photoshop format as **My read the classics**.

12   Use the Magic Wand tool to select all the letters completely. (*Hint:* On the options bar, clear Contiguous and specify a Tolerance of 50. Then click one of the letters.)

13   Save the selection as **Text only**.

14   Update and close the file.

Review questions

1 Which tool snaps a selection to contrasting image edges as you move the mouse pointer around them?

A Lasso

B Polygonal Lasso

C Magnetic Lasso

D Magic Wand

2 How can you most efficiently create a perfectly square selection?

A Press Alt and use the Rectangular Marquee tool to drag to create the square.

B Press Shift and use the Rectangular Marquee tool to drag to create the square.

C Press Alt and use the Polygonal Lasso tool to click to add each of the square's corners.

D Press Shift and use the Polygonal Lasso tool to click to add each of the square's corners.

3 Which tool should you use to create an irregularly shaped selection made up of only straight lines?

A Lasso

B Polygonal Lasso

C Magnetic Lasso

D Rectangular Marquee

4 How can you save a selection for later use? [Choose all that apply.]

A Choose Select, Save Selection; enter a name for the selection; and click OK.

B Choose Select, Modify, Expand.

C At the bottom of the Layers palette, click the "Create a new layer" button.

D At the bottom of the Channels palette, click the "Save selection as channel" button.

5 After saving a selection, how can you load it later? [Choose all that apply.]

A Choose Select, Load Selection. From the Channel list, select the alpha channel representing the saved selection. Click OK.

B From the Channels palette menu, choose Load, and select the alpha channel representing the saved selection.

C In the Channels palette, press Ctrl and click the alpha channel representing the saved selection.

D In the Layers palette, press Ctrl and click the layer where you made the selection.

6 Where does Photoshop store selections you've saved?

7 What tool can you use to select solid colored areas with one click?

8 To subtract from a selection, which key should you press as you use a selection tool?

A Ctrl

B Alt

C Shift

D F1

9 Softening a selection by gradually reducing opacity to a specified number of pixels extending equally inside and outside a selection edge is called _____ .

10 True or false: If you want to move the selected pixels, rather than the selection marquee, you should drag with the Move tool, not a selection tool.

11 You can use the Refine Edge dialog box to adjust all of the following settings except:

A Radius

B Contrast

C Feather

D Tolerance