

Names: \_\_\_\_\_

Worksheet #1

CS Logins: \_\_\_\_\_

### Lecture 1 Worksheet

#### Seamcarving

Sit with a partner to work on these exercises together though the lecture.  
Please turn this in at the end of class. Make sure to write your names and logins legibly.

#### Question 1: Image resizing

- Grayscale 3x3 image with the following pixel intensities
- What's the importance value of the center pixel?

4	6	5
2	5	7
3	2	6

#### Question 2: Here is an importance array. Find and circle the best seam and discuss your answer with neighbors

9	3	8	15	1	11	7
6	13	9	5	10	4	14
9	6	7	9	14	7	11

#### Question 3: Here is a larger importance array. Find and circle the best seam and discuss your answer with neighbors

13	3	1	10	8	11	4
6	10	4	11	12	5	10
1	6	14	10	7	14	7
14	12	10	15	13	3	8
9	3	8	15	1	11	7
6	13	9	5	10	4	14
9	6	7	9	14	7	11

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**Question 4: Work together to fill in the costs and dirs arrays**

Importance Vals

<b>9</b>	<b>12</b>	<b>6</b>	<b>5</b>	<b>12</b>
<b>14</b>	<b>10</b>	<b>6</b>	<b>15</b>	<b>9</b>
<b>4</b>	<b>1</b>	<b>7</b>	<b>10</b>	<b>4</b>
<b>12</b>	<b>11</b>	<b>4</b>	<b>7</b>	<b>15</b>

Costs


Dirs


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<b>4</b>	<b>1</b>	<b>7</b>	<b>10</b>	<b>4</b>
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Costs


Dirs
