Naming Transformations Card Game

Who am I ?

Each graph card has two sine curves, the original curve and the image curve. The image curve is the result of one or more transformations. Each graph card has its matching transformation card beside it.

Print two sets of cards. Keep one set to help you check answers. Cut out the second set. The answer key (next page) uses the number beside each card to identify matching pairs, so include the card number when cutting out the cards.

Examples of Subsets of Cards

1) pairs of cards that have one transformation (e.g., graph cards 1-8 and their corresponding card)
2) pairs of cards that have a specific transformation (e.g., vertical translation up)

Version 1

Cover the transformation words and state the transformation(s).

Or, cover the graph and use the transformation words to visualize the graph.

Version 2

Use the whole set of cards or a subset of the cards.

Place the cards face up on a flat surface. Match all the pairs.

Version 3

Play with a partner to make matching pairs.
Use the whole set of cards or a subset of the cards.
Turn the cards face down on a flat surface. Person A chooses two cards. (…/continued)

Version 3 (continued)

If the cards match, Person A keeps the pair and takes another turn. If the cards don't match, turn them face down again. Person B takes a turn. Continue until all pairs are found.

Version 4

Use all the graph cards. Select the cards that include one specific type of transformation. Use uncut pages of cards to check your solution. (…/continued)

Version 4 (continued)

Examples of one type of transformation:

- vertical compression
- horizontal stretch
- horizontal translation left or right.

Answer Key (1 of 6)

Graph Card Number	Words Card Number
1	40
2	58
3	57
4	75
5	41
6	56

Answer Key (2 of 6)

Graph Card Number	Words Card Number
7	59
8	74
9	42
10	60
11	55
12	73

Answer Key (3 of 6)

Graph Card Number	Words Card Number
13	43
14	72
15	61
16	54
17	44
18	53

Answer Key (4 of 6)

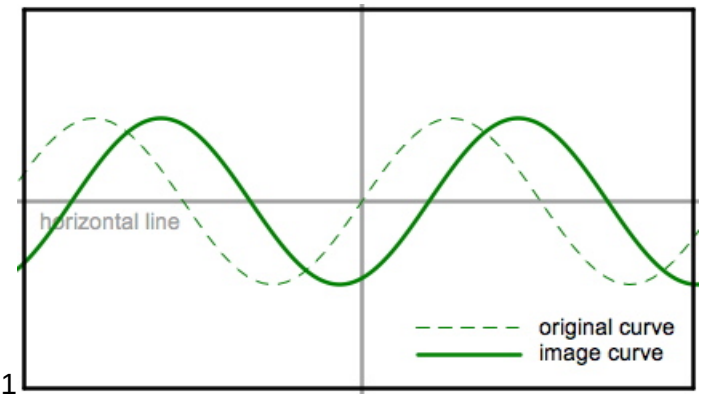
Graph Card Number	Words Card Number
19	62
20	71
21	45
22	70
23	63
24	52

Answer Key (5 of 6)

Graph Card Number	Words Card Number
25	46
26	69
27	51
28	64
29	47
30	50

Answer Key (6 of 6)

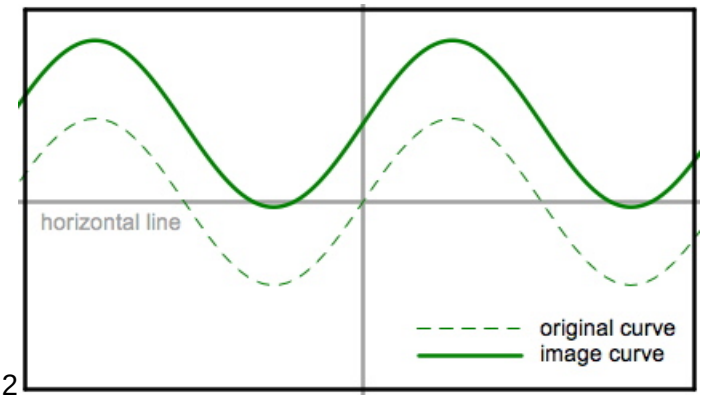
Graph Card Number	Words Card Number
31	65
32	68
33	48
34	67
35	66
36	49



1

horizontal translation left or right

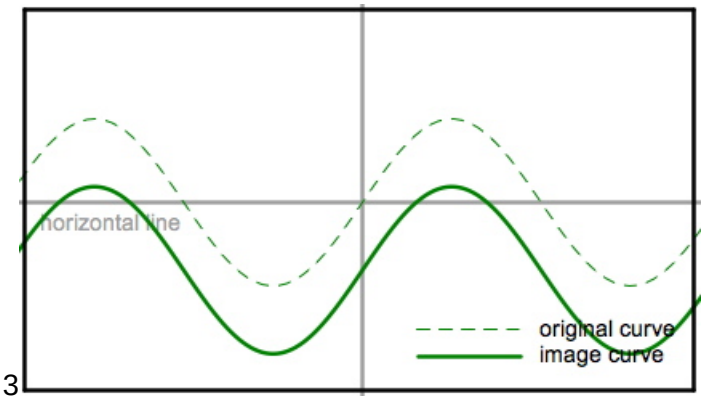
40



2

vertical translation up

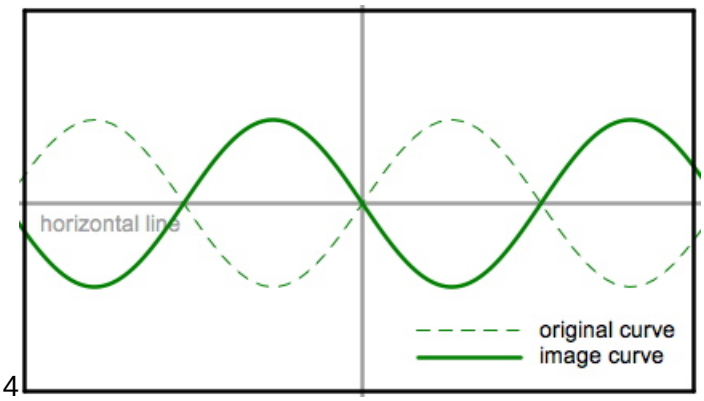
58



3

vertical translation down

57

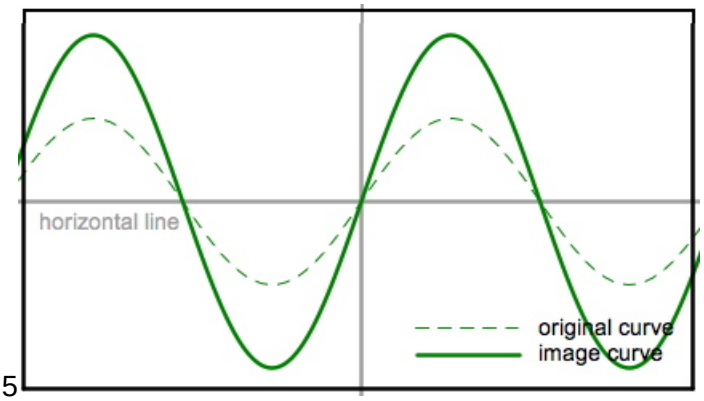


4

reflection in a horizontal line

75

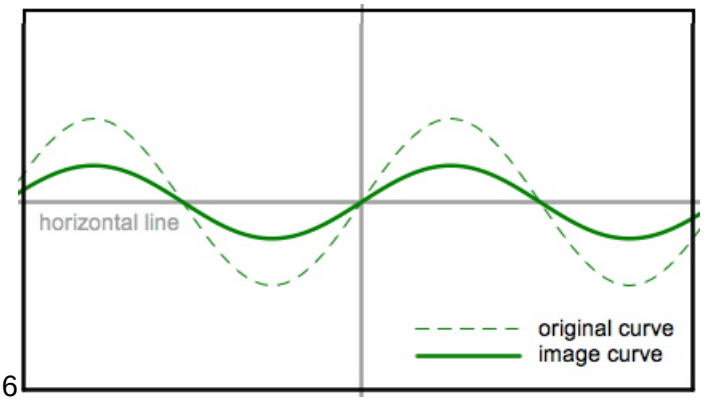
5



41

vertical stretch

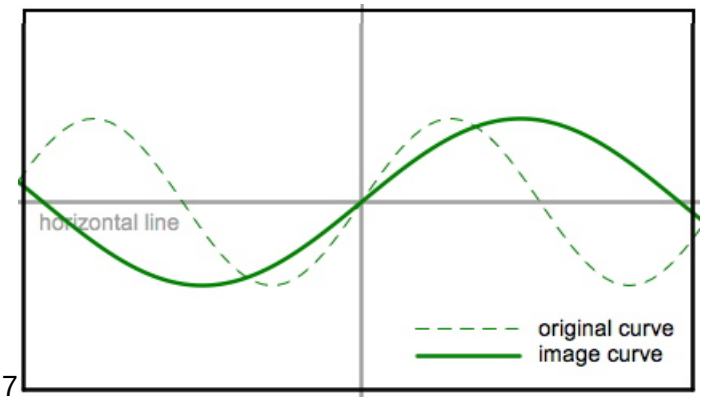
6



56

vertical compression

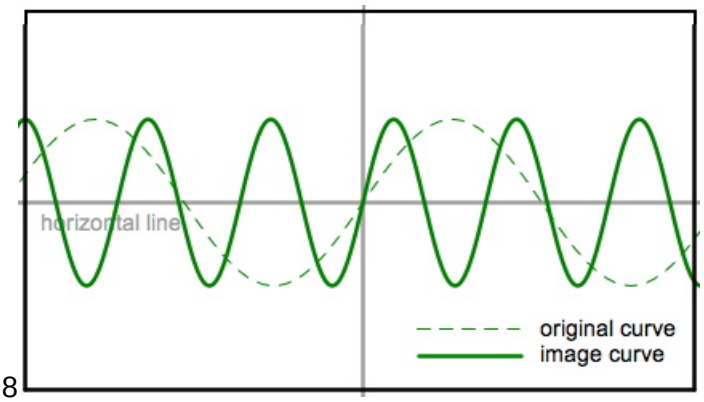
7



59

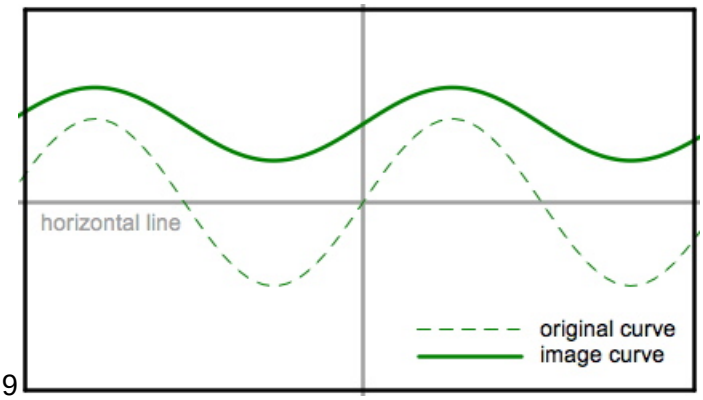
horizontal stretch

8



74

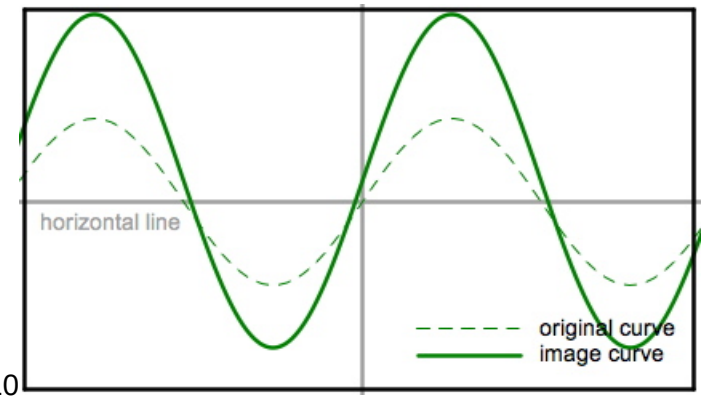
horizontal compression



9

vertical translation up
vertical compression

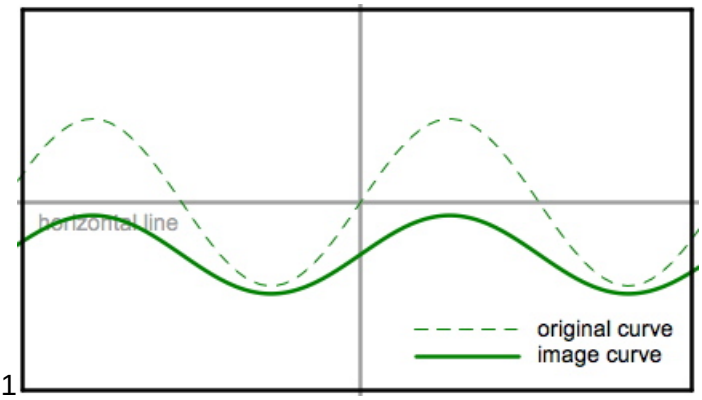
42



10

vertical translation up
vertical stretch

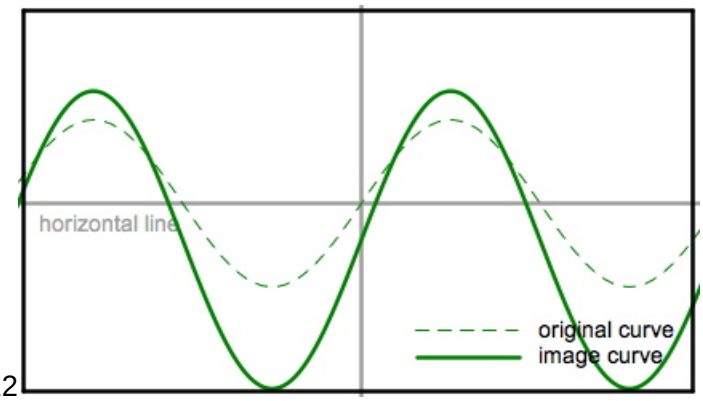
60



11

vertical translation down
vertical compression

55

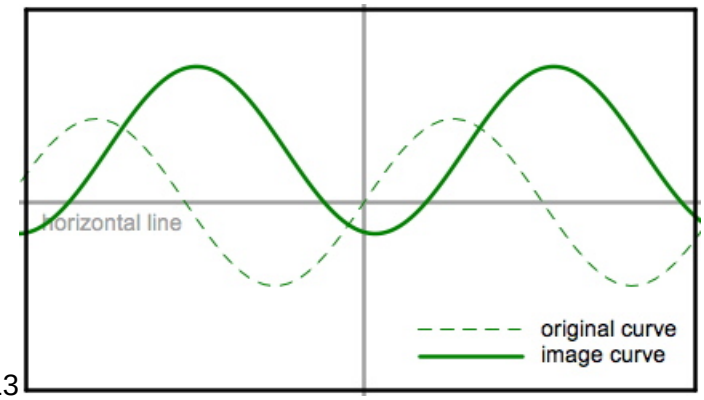


12

vertical translation down
vertical stretch

73

13

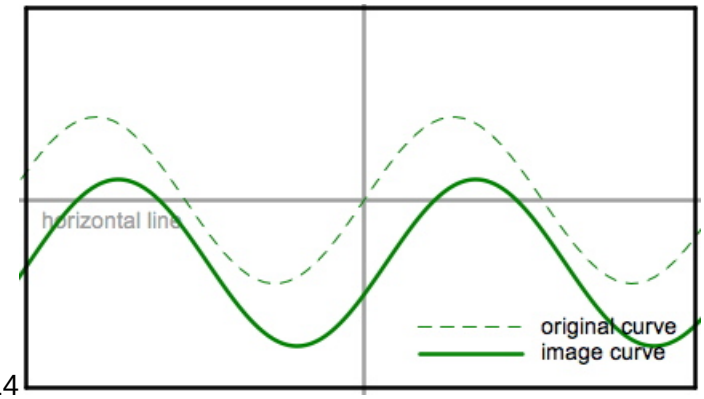


43

horizontal translation left or right

vertical translation up

14

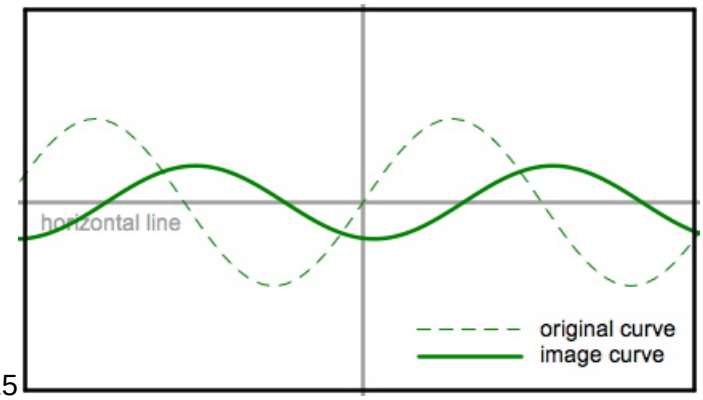


72

horizontal translation left or right

vertical translation down

15

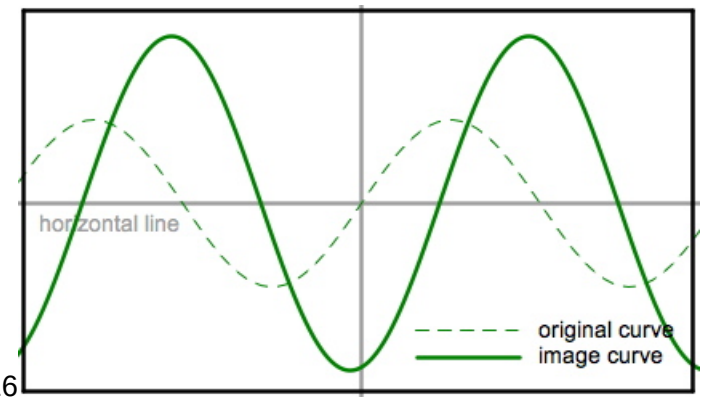


61

horizontal translation left or right

vertical compression

16

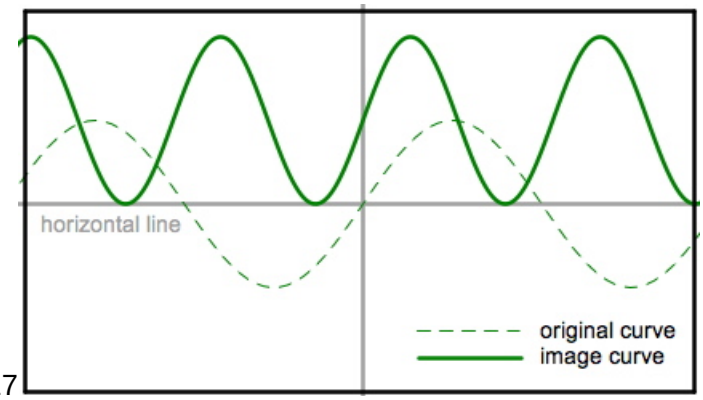


54

horizontal translation left or right

vertical stretch

17

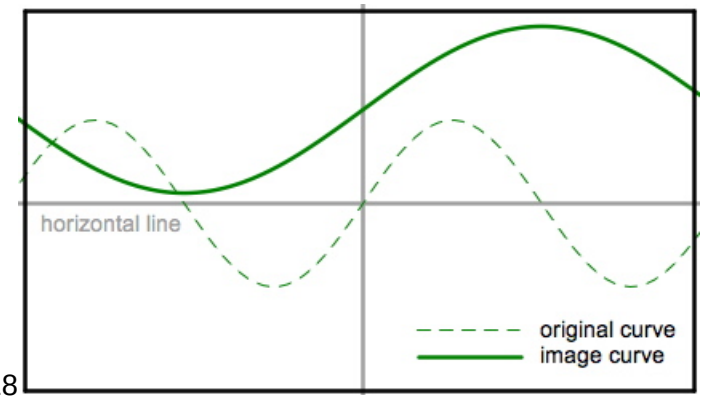


44

vertical translation up

horizontal compression

18

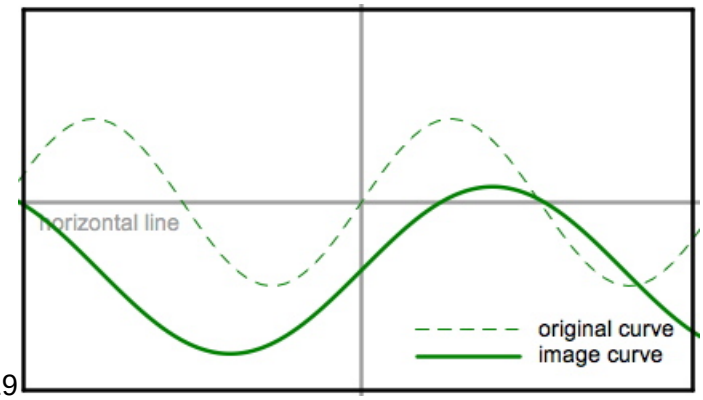


53

vertical translation up

horizontal stretch

19

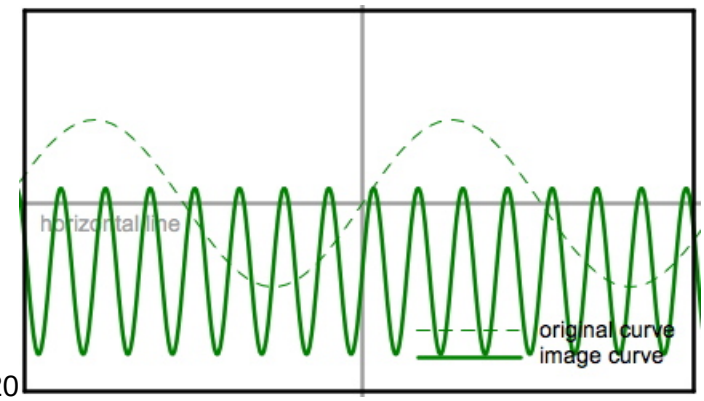


62

vertical translation down

horizontal stretch

20

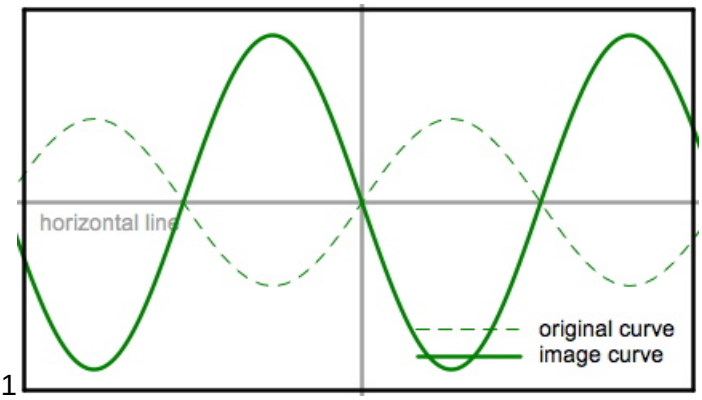


71

vertical translation down

horizontal compression

21

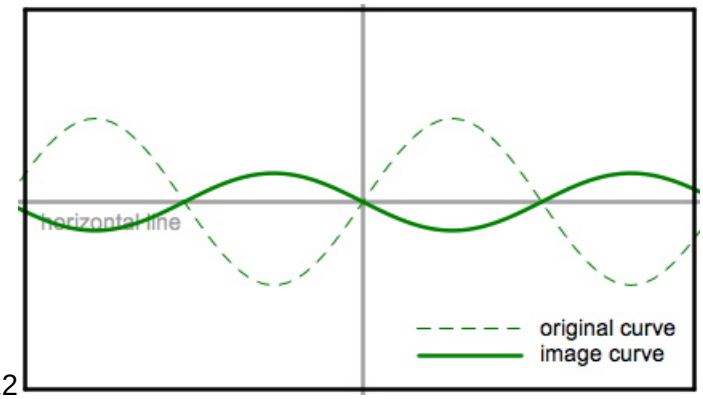


45

vertical stretch

reflection in a horizontal line

22

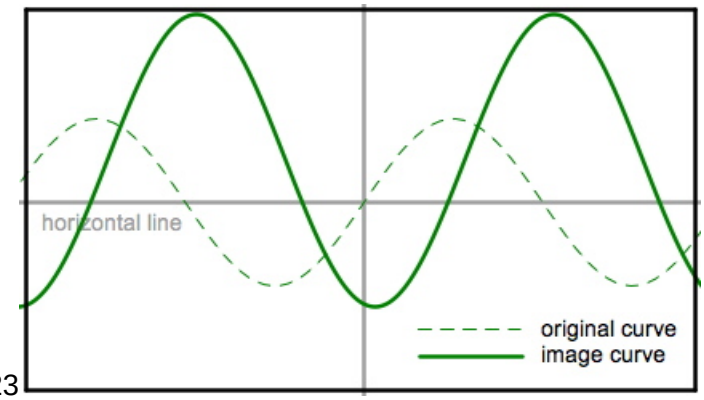


70

vertical compression

reflection in a horizontal line

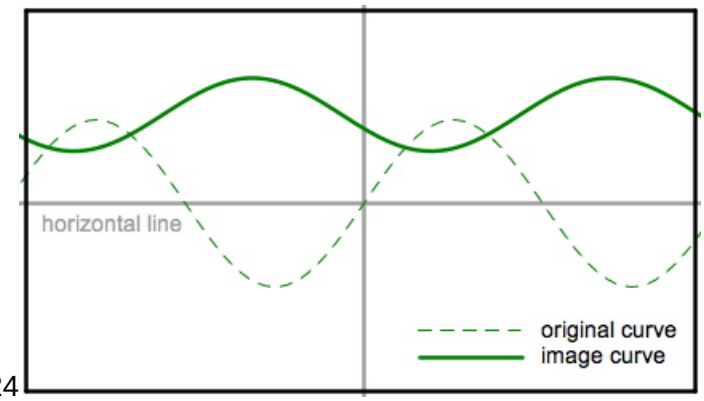
23



63

horizontal translation left or right
vertical translation up
vertical stretch

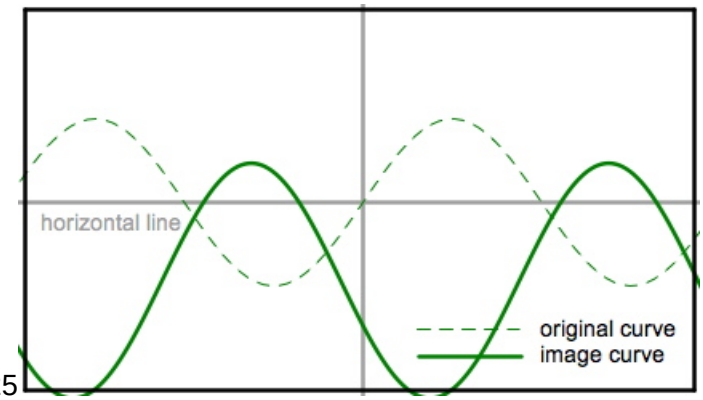
24



52

horizontal translation left or right
vertical translation up
vertical compression

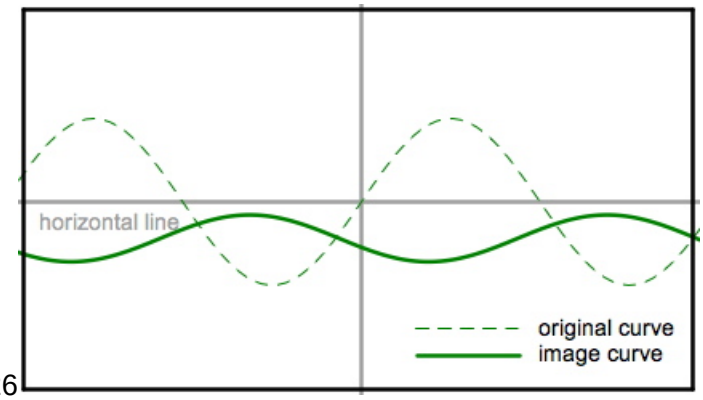
25



46

horizontal translation left or right
vertical translation down
vertical stretch

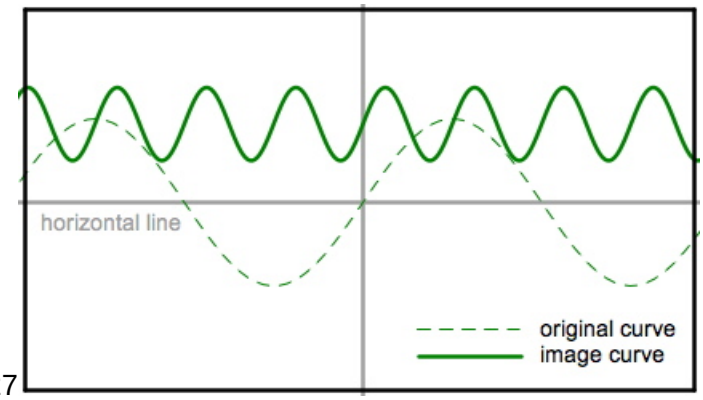
26



69

horizontal translation left or right
vertical translation down
vertical compression

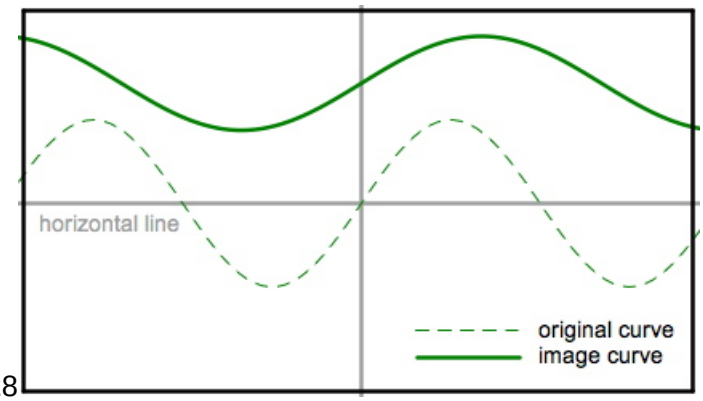
27



51

vertical translation up
vertical compression
horizontal compression

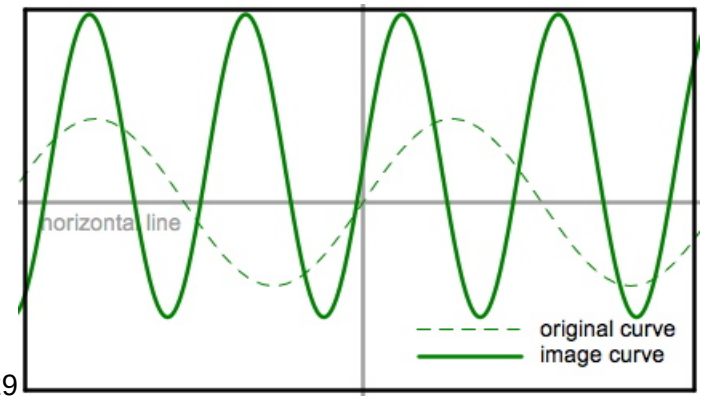
28



64

vertical translation up
vertical compression
horizontal stretch

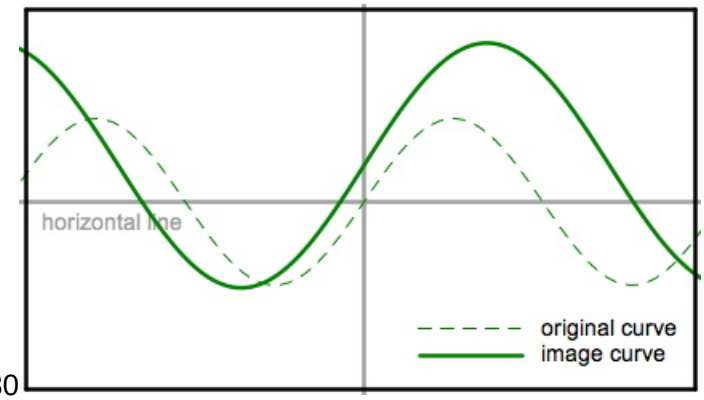
29



47

vertical translation up
vertical stretch
horizontal compression

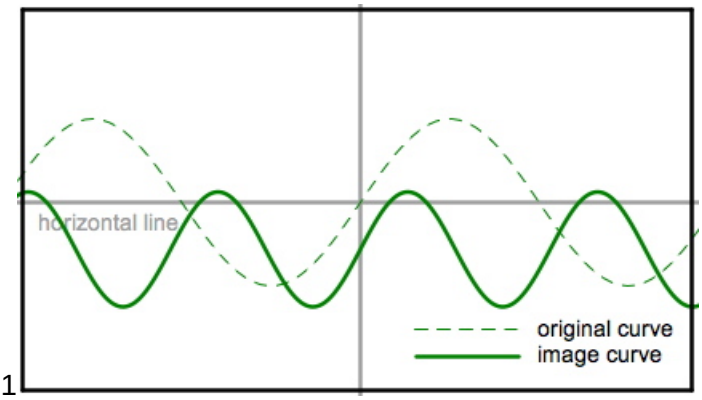
30



50

vertical translation up
vertical stretch
horizontal stretch

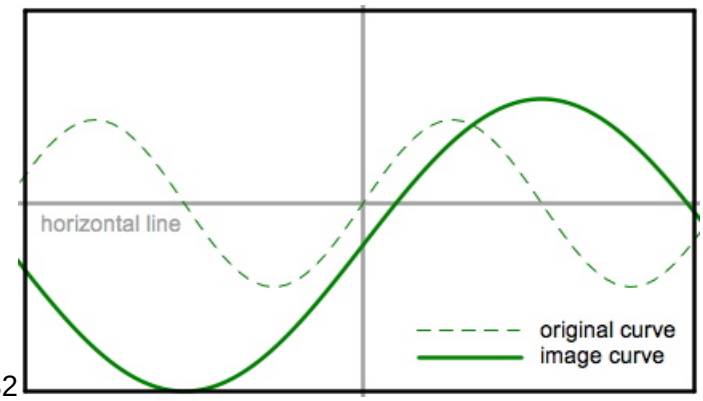
31



65

vertical translation down
vertical compression
horizontal compression

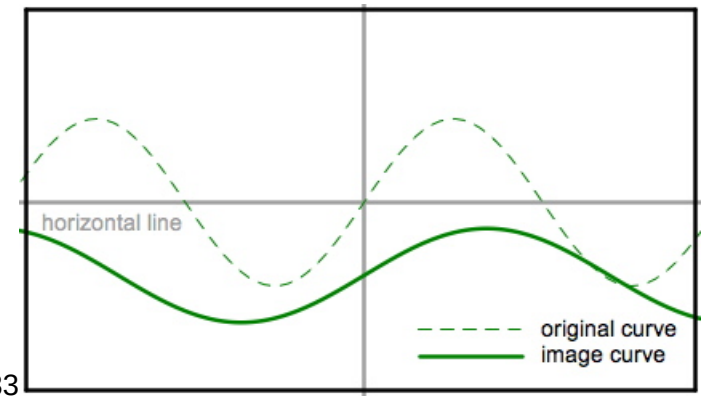
32



68

vertical translation down
vertical stretch
horizontal stretch

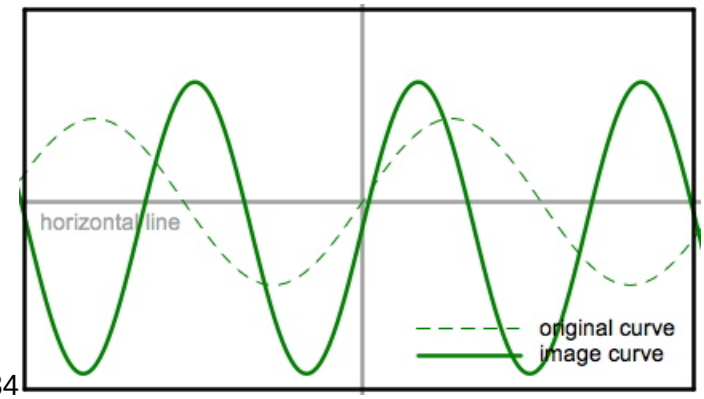
33



48

vertical translation down
vertical compression
horizontal stretch

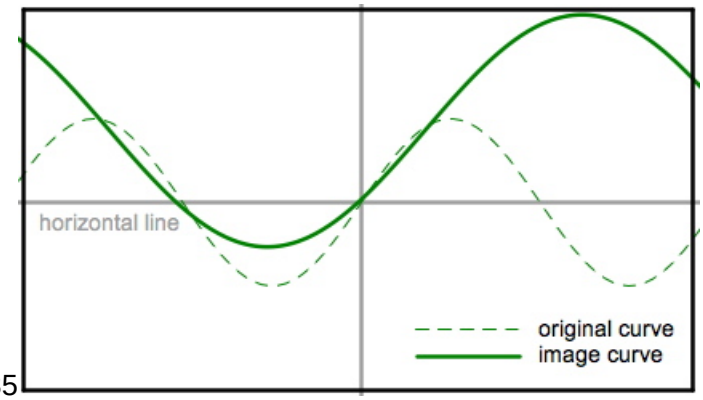
34



67

vertical translation down
vertical stretch
horizontal compression

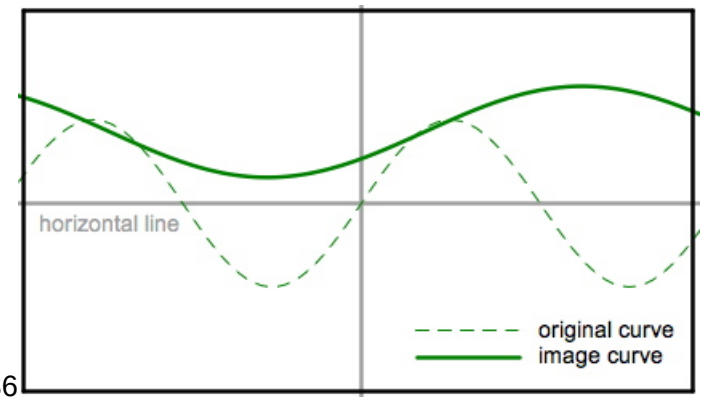
35



66

horizontal translation left or right
vertical translation up
vertical stretch
horizontal stretch

36



49

horizontal translation left or right
vertical translation up
vertical compression
horizontal stretch