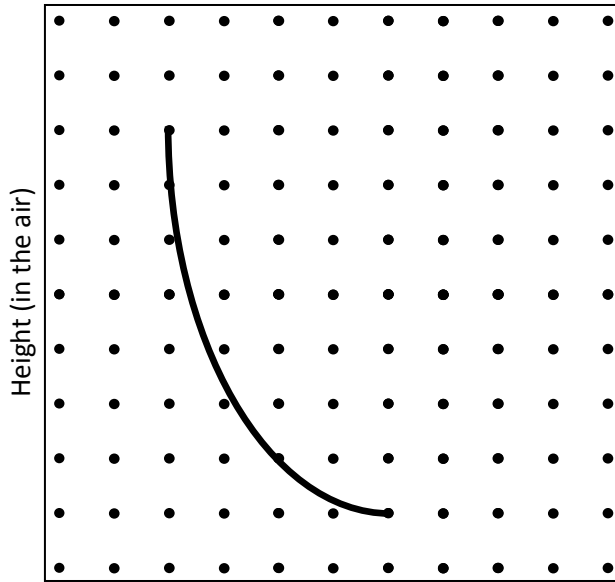


You have been hired to design **three** grind rails (handrails) for a new skate park. Use the dot paper below to design the grind rails. The grind rails **must only use straight lines**. Make sure that every grind rail **starts and stops at a dot**.

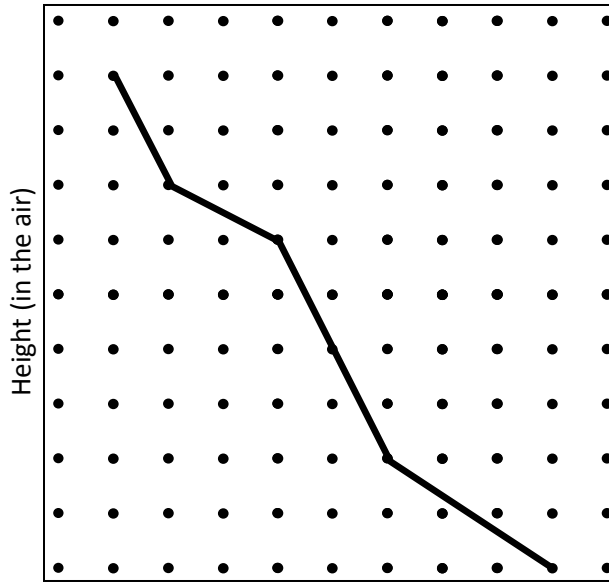
Grind Rail #1



Height (in the air)

Horizontal location (on ground)

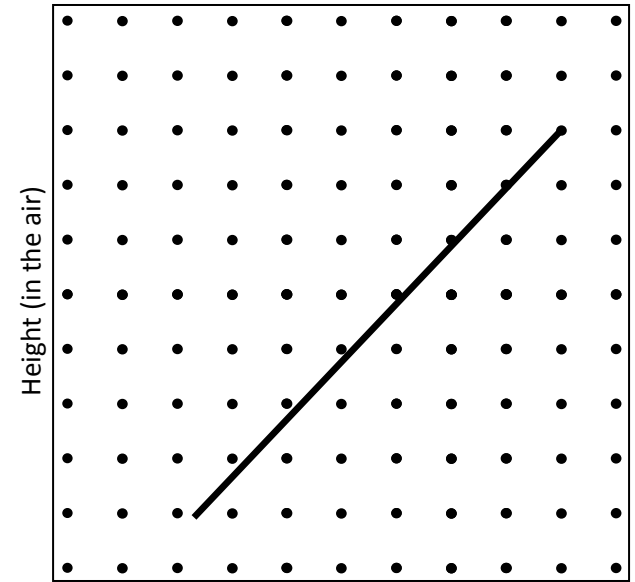
Grind Rail #2



Height (in the air)

Horizontal location (on ground)

Grind Rail #3



Height (in the air)

Horizontal location (on ground)

Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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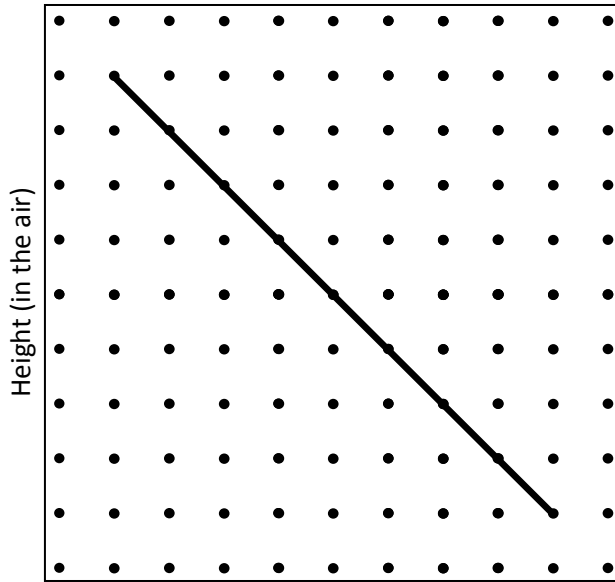
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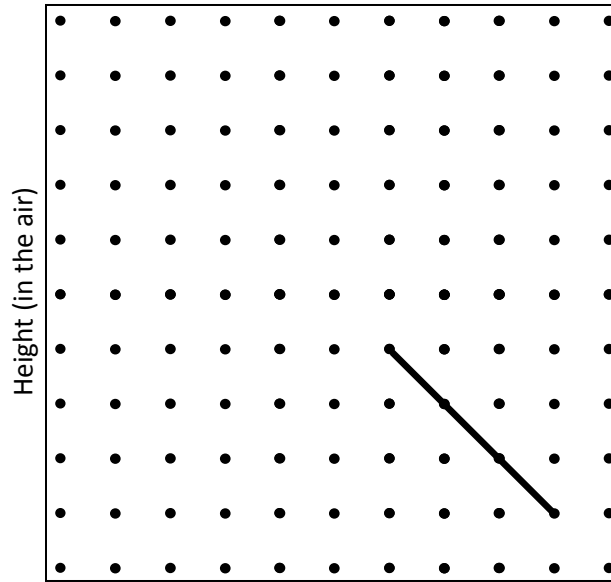
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Grind Rail #1



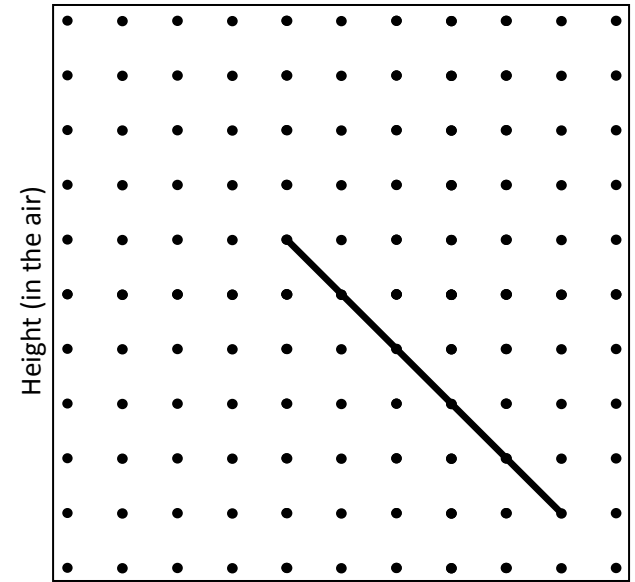
Horizontal location (on ground)

Grind Rail #2



Horizontal location (on ground)

Grind Rail #3



Horizontal location (on ground)

Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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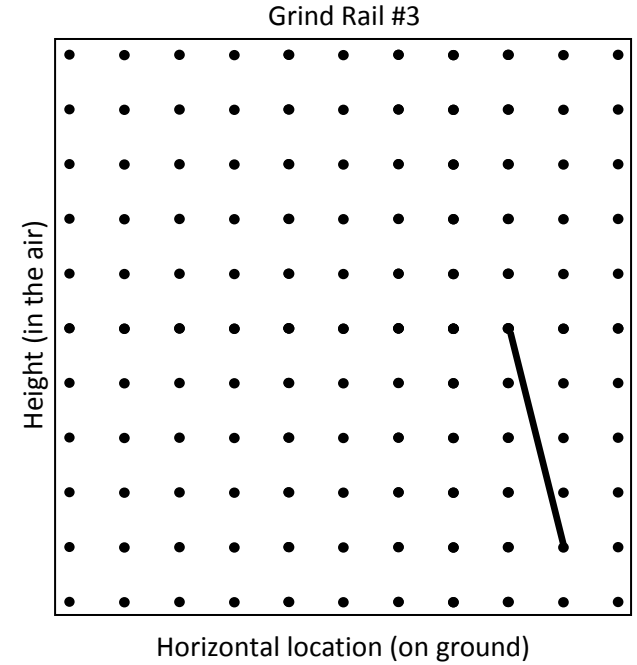
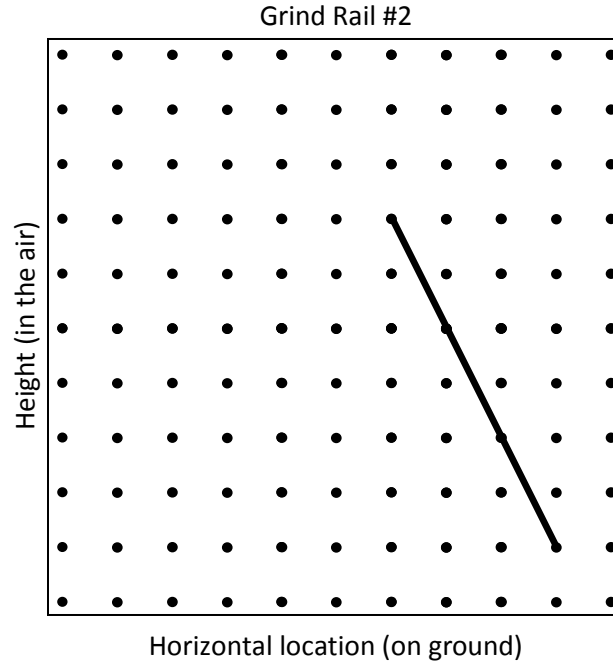
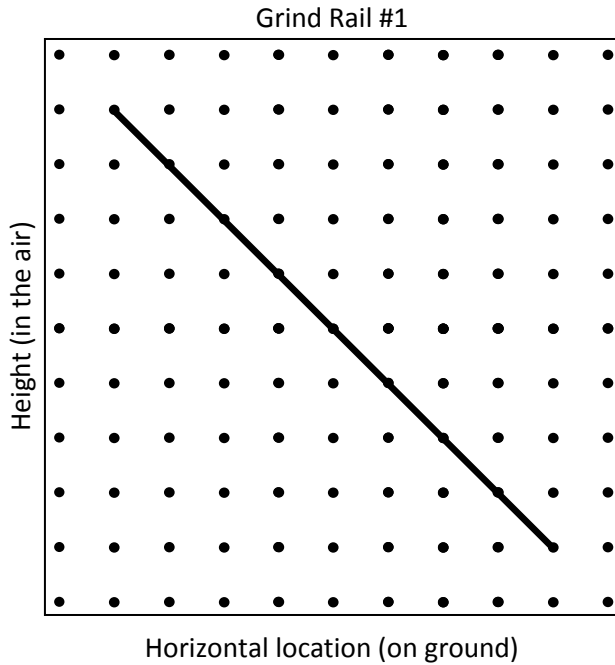


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You have been hired to design **three** grind rails (handrails) for a new skate park. Use the dot paper below to design the grind rails. The grind rails **must only use straight lines**. Make sure that every grind rail **starts and stops at a dot**.



Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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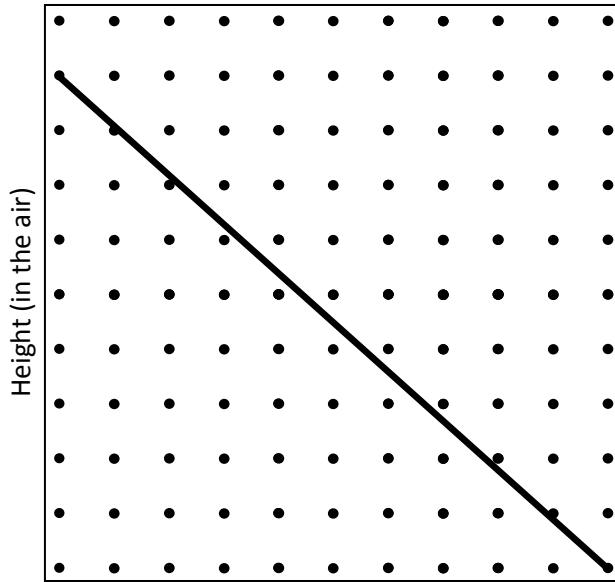
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You have been hired to design **three** grind rails (handrails) for a new skate park. Use the dot paper below to design the grind rails. The grind rails **must only use straight lines**. Make sure that every grind rail **starts and stops at a dot**.

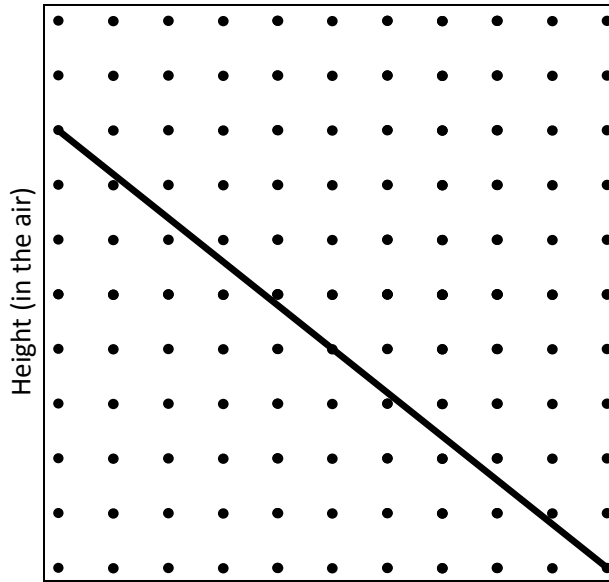
Grind Rail #1



Height (in the air)

Horizontal location (on ground)

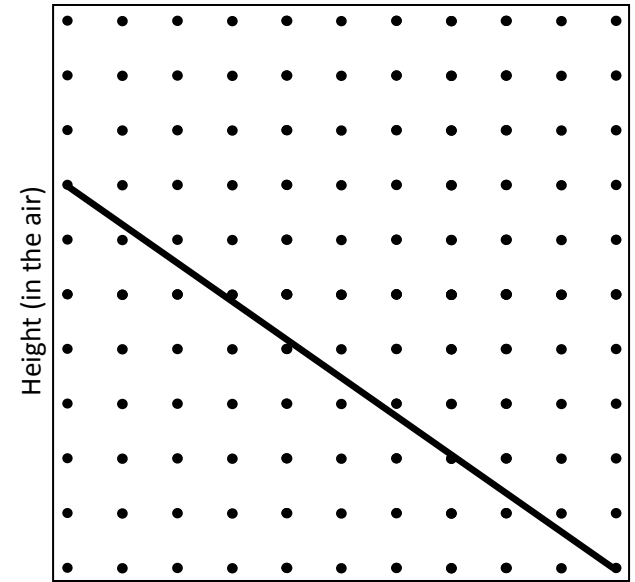
Grind Rail #2



Height (in the air)

Horizontal location (on ground)

Grind Rail #3



Height (in the air)

Horizontal location (on ground)

Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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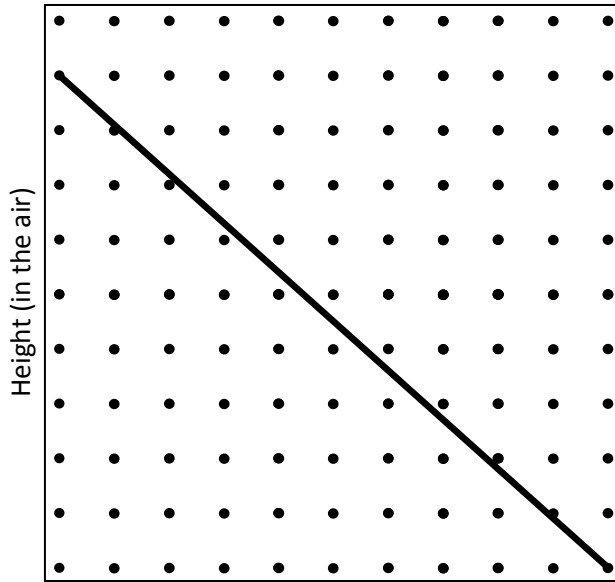
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You have been hired to design **three** grind rails (handrails) for a new skate park. Use the dot paper below to design the grind rails. The grind rails **must only use straight lines**. Make sure that every grind rail **starts and stops at a dot**.

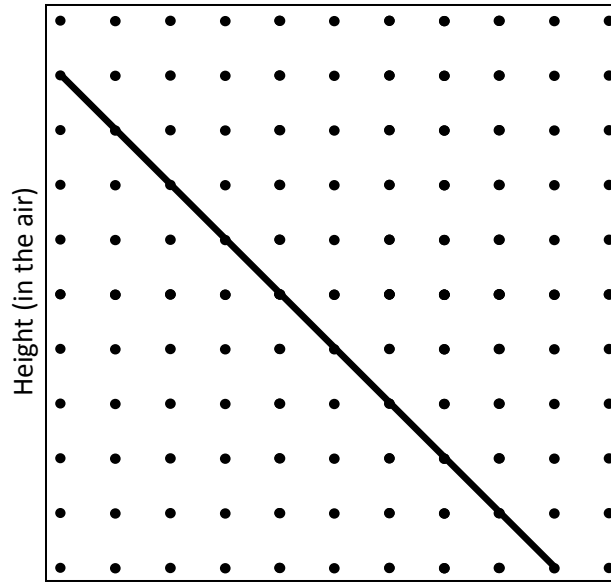
Grind Rail #1



Height (in the air)

Horizontal location (on ground)

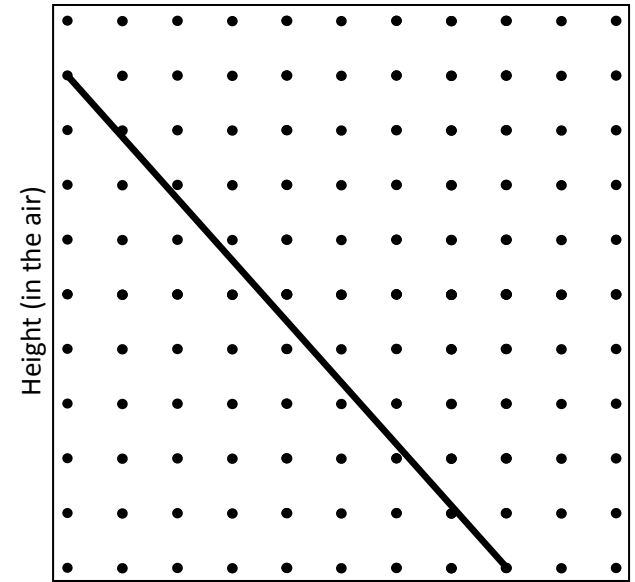
Grind Rail #2



Height (in the air)

Horizontal location (on ground)

Grind Rail #3



Height (in the air)

Horizontal location (on ground)

Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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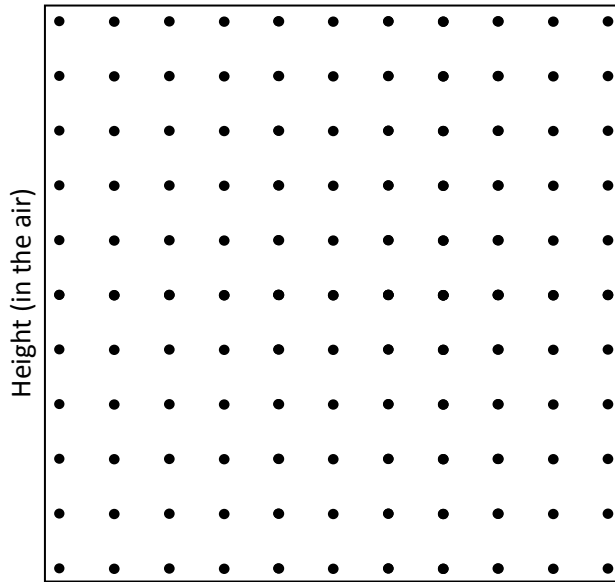
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Name \_\_\_\_\_

Period # \_\_\_\_\_

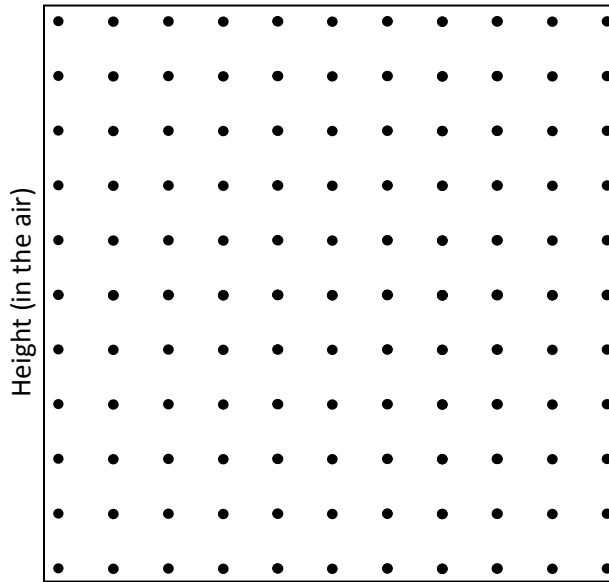
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Grind Rail #1



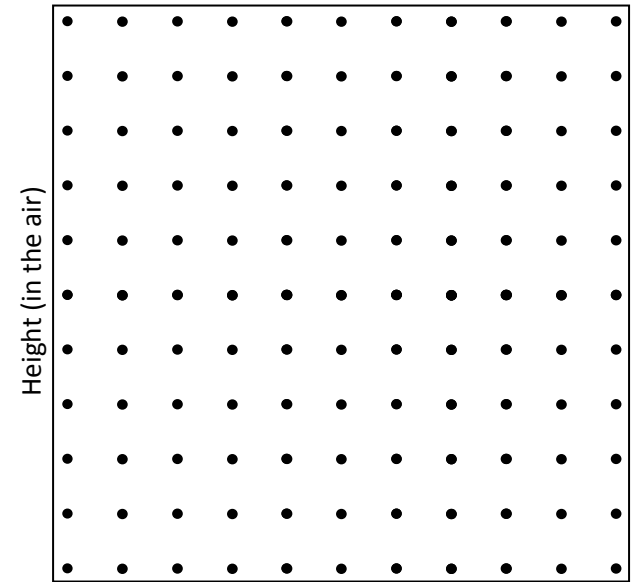
Horizontal location (on ground)

Grind Rail #2



Horizontal location (on ground)

Grind Rail #3



Horizontal location (on ground)

Grind Rail #1

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #2

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Grind Rail #3

Vertical change: \_\_\_\_\_

Horizontal change: \_\_\_\_\_

Rank the grind rails above from most steep to the least steep and explain why you ranked them that way:

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Name \_\_\_\_\_

Period # \_\_\_\_\_

## Grind Rail Questionnaire – Part 1

Thank you for submitting your grind rail designs for the skate park. Please answer the questions listed below so that we can review your design to see if it meets our requirements.

1. Using words, numbers, and/or pictures, explain what slope means.



2. What are the slopes for each of your three grind rails? Clearly explain what each grind rail's slope represents.

Grind Rail #1	Grind Rail #2	Grind Rail #2

Name \_\_\_\_\_

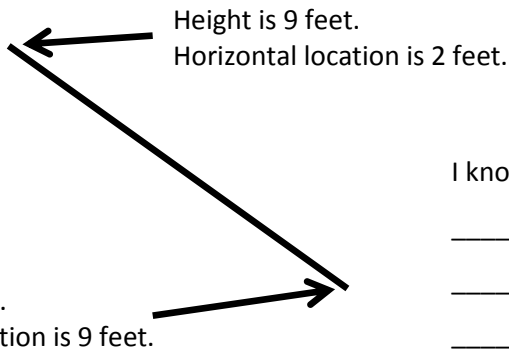
Period # \_\_\_\_\_

## Grind Rail Questionnaire – Part 2

Thank you for submitting your grind rail designs for the skate park. Please answer the questions listed below so that we can thoroughly review your design to see if it meets our requirements.



3. A competitor submitted this grind rail design below but did not use dot paper. However, she did include the heights and horizontal locations. Please determine the grind rail's slope.



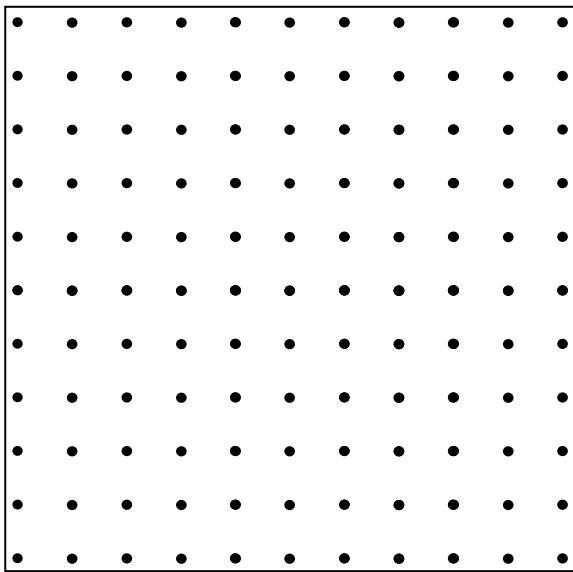
I know the grind rail's slope is \_\_\_\_\_ because

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4. A different competitor forgot to submit her grind rail designs but did mention that the Grind Rail #1 has a slope of  $-\frac{3}{4}$  and that Grind Rail #2 has a slope of  $-3$ . Use that information to sketch and label the grind rails below. Explain how you knew what to draw beneath each grind rail.

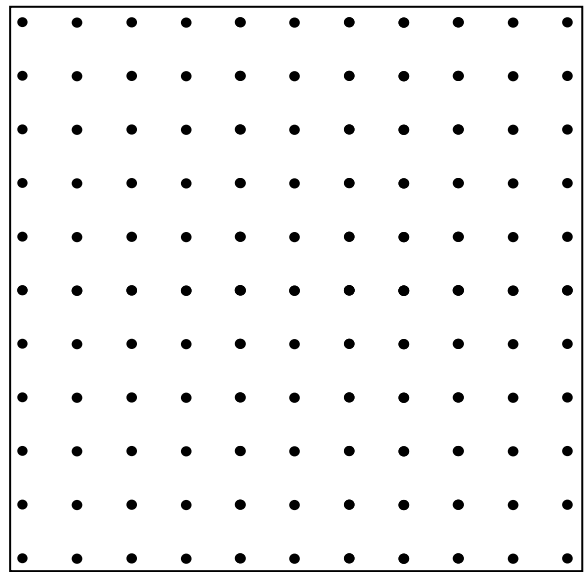


Grind Rail #1

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Grind Rail #2

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