

# IMKH California



## GRADE 3

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Teacher Resource Copy  
Masters

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### UNITS 5-6



**Kendall Hunt**

Book 3  
Certified by Illustrative Mathematics®

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 GRADE 3

UNIT

**5**

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Teacher Resource Copy  
Masters

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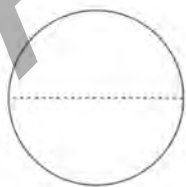
LESSON BLACKLINE MASTERS

| address               | title                                  | students per copy | written on? | requires cutting? | card stock recommended? | color paper recommended? | used multiple times? | used as a center material? |
|-----------------------|----------------------------------------|-------------------|-------------|-------------------|-------------------------|--------------------------|----------------------|----------------------------|
| Activity Grade3.5.1.1 | Card Sort Partitions Cards             | 2                 | no          | yes               | no                      | no                       | no                   | no                         |
| Activity Grade3.5.1.2 | Fold and Name Handout                  | 4                 | yes         | yes               | no                      | no                       | no                   | no                         |
| Activity Grade3.5.2.1 | Partition the Strips Template          | 2                 | yes         | yes               | no                      | no                       | no                   | no                         |
| Activity Grade3.5.3.2 | Card Sort Fraction Match Cards         | 2                 | no          | yes               | no                      | no                       | no                   | no                         |
| Activity Grade3.5.4.1 | Secret Fraction Stage 1 Directions     | 2                 | yes         | no                | no                      | no                       | no                   | yes                        |
| Activity Grade3.5.4.1 | Secret Fraction Stage 1 Cards          | 2                 | no          | yes               | no                      | no                       | yes                  | yes                        |
| Activity Grade3.5.5.1 | Card Sort Number Lines Cards           | 2                 | no          | yes               | no                      | no                       | no                   | no                         |
| Activity Grade3.5.5.2 | Fold and Label the Number Line Handout | 1                 | yes         | yes               | no                      | no                       | no                   | no                         |

| address                   | title                                              | students per copy | written on? | requires cutting? | card stock recommended? | color paper recommended? | used multiple times? | used as a center material? |
|---------------------------|----------------------------------------------------|-------------------|-------------|-------------------|-------------------------|--------------------------|----------------------|----------------------------|
| Activity<br>Grade3.5.7.1  | Number Line Scoot<br>Stage 2<br>Gameboard          | 2                 | no          | no                | no                      | no                       | yes                  | yes                        |
| Activity<br>Grade3.5.7.1  | Number Line Scoot<br>Stage 2 Directions            | 2                 | no          | yes               | no                      | no                       | no                   | yes                        |
| Activity<br>Grade3.5.15.2 | Spin to Win Same<br>Denominator<br>Spinner         | 2                 | no          | no                | no                      | no                       | yes                  | yes                        |
| Activity<br>Grade3.5.15.2 | Spin to Win Same<br>Denominator<br>Recording Sheet | 2                 | yes         | no                | no                      | no                       | no                   | yes                        |
| Activity<br>Grade3.5.18.2 | Plan Your Own Fun<br>Run Handout                   | 6                 | yes         | no                | no                      | yes                      | no                   | no                         |

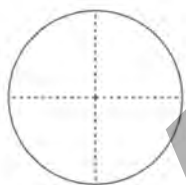
Card Sort: Partitions

A



Card Sort: Partitions

B



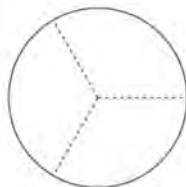
Card Sort: Partitions

C



Card Sort: Partitions

D



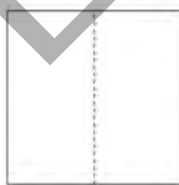
Card Sort: Partitions

E



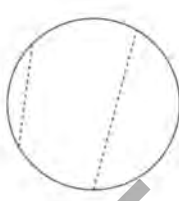
Card Sort: Partitions

F



Card Sort: Partitions

G



Card Sort: Partitions

H



Card Sort: Partitions

I



Card Sort: Partitions

J



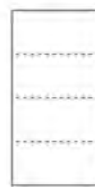
Card Sort: Partitions

K



Card Sort: Partitions

L

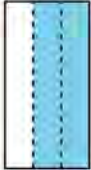



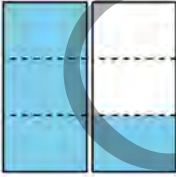
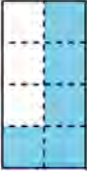








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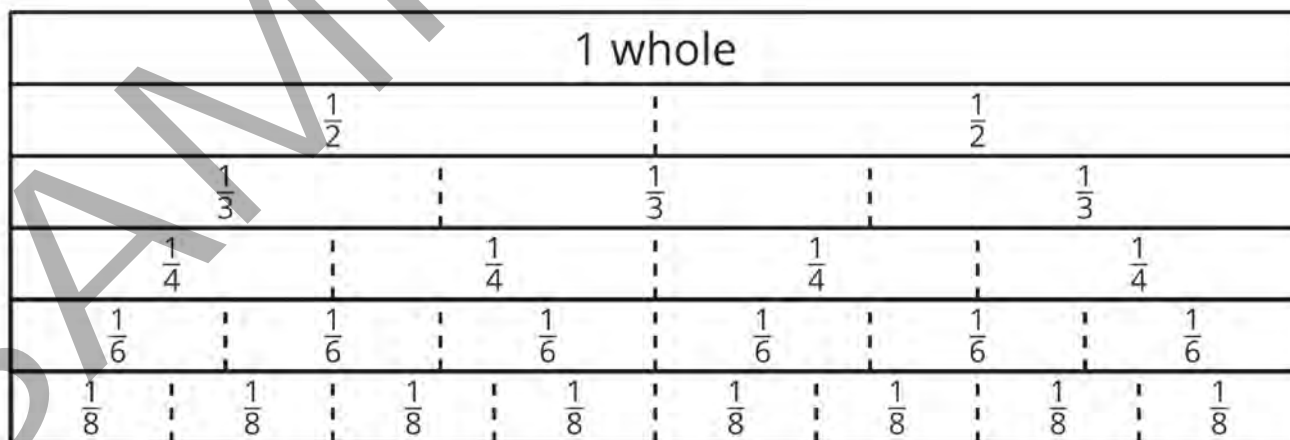


|                                                        |                                                        |                                                                                                                              |                                                                                                                              |
|--------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Card Sort: Fraction Match<br><b>A</b><br>$\frac{2}{2}$ | Card Sort: Fraction Match<br><b>B</b><br>$\frac{4}{6}$ | Card Sort: Fraction Match<br><b>C</b><br>   | Card Sort: Fraction Match<br><b>D</b><br>   |
| Card Sort: Fraction Match<br><b>E</b><br>$\frac{2}{3}$ | Card Sort: Fraction Match<br><b>F</b><br>$\frac{5}{8}$ | Card Sort: Fraction Match<br><b>G</b><br>   | Card Sort: Fraction Match<br><b>H</b><br>   |
| Card Sort: Fraction Match<br><b>I</b><br>$\frac{2}{4}$ | Card Sort: Fraction Match<br><b>J</b><br>$\frac{7}{8}$ | Card Sort: Fraction Match<br><b>K</b><br>  | Card Sort: Fraction Match<br><b>L</b><br>  |
| Card Sort: Fraction Match<br><b>M</b><br>$\frac{2}{6}$ | Card Sort: Fraction Match<br><b>N</b><br>$\frac{4}{3}$ | Card Sort: Fraction Match<br><b>O</b><br> | Card Sort: Fraction Match<br><b>P</b><br> |

|                                                 |                                                                                                                       |                                                 |                                                                                                                     |
|-------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| Card Sort: Fraction Match<br>Q<br>$\frac{3}{6}$ | Card Sort: Fraction Match<br>R<br> | Card Sort: Fraction Match<br>S<br>$\frac{3}{3}$ | Card Sort: Fraction Match<br>T<br> |
| Card Sort: Fraction Match<br>U<br>$\frac{5}{6}$ | Card Sort: Fraction Match<br>V<br> | Card Sort: Fraction Match<br>W<br>$\frac{3}{4}$ | Card Sort: Fraction Match<br>X<br> |

## Directions:

- Place the secret fraction cards facedown in a stack.
- Place the unit fraction cards facedown in a stack.
- Each partner:
  - Pick 3 secret fraction cards without showing your partner. You are trying to make these secret fractions using your unit fractions.
  - Pick 5 unit fraction cards and hold them in your hands without showing your partner.
- Partner A (choose an option):
  - Ask your partner if they are holding a unit fraction card that you need.
  - Trade 1 of your secret fractions for the secret fraction card at the top of the stack.
- Partner B:
  - If you have the unit fraction your partner asked for, give it to your partner. If you have more than 1, only give your partner 1.
  - If you do not have the unit fraction that was asked for, tell your partner to pick a card from the top of the unit fraction stack and keep it in their hand.
- If you have enough unit fractions to make one of your secret fractions, show the secret fraction. Explain how you made that fraction. You can use the diagram at the bottom of the page to help you explain your thinking. Then set all the used unit fraction cards aside.
- Switch roles and repeat.
- The first partner to make all 3 secret fractions wins.
- If you run out of unit fraction cards, mix up the used unit fractions and place them facedown in a stack.



|                                |                                |                                |                                |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| Unit Fraction<br>$\frac{1}{2}$ | Unit Fraction<br>$\frac{1}{2}$ | Unit Fraction<br>$\frac{1}{3}$ | Unit Fraction<br>$\frac{1}{3}$ |
| Unit Fraction<br>$\frac{1}{3}$ | Unit Fraction<br>$\frac{1}{4}$ | Unit Fraction<br>$\frac{1}{4}$ | Unit Fraction<br>$\frac{1}{4}$ |
| Unit Fraction<br>$\frac{1}{4}$ | Unit Fraction<br>$\frac{1}{6}$ | Unit Fraction<br>$\frac{1}{6}$ | Unit Fraction<br>$\frac{1}{6}$ |
| Unit Fraction<br>$\frac{1}{6}$ | Unit Fraction<br>$\frac{1}{6}$ | Unit Fraction<br>$\frac{1}{6}$ | Unit Fraction<br>$\frac{1}{8}$ |
| Unit Fraction<br>$\frac{1}{8}$ | Unit Fraction<br>$\frac{1}{8}$ | Unit Fraction<br>$\frac{1}{8}$ | Unit Fraction<br>$\frac{1}{8}$ |

|                                  |                                  |                                  |                                  |
|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| Unit Fraction<br>$\frac{1}{8}$   | Unit Fraction<br>$\frac{1}{8}$   | Unit Fraction<br>$\frac{1}{8}$   | Unit Fraction<br>$\frac{1}{8}$   |
| Secret Fraction<br>$\frac{2}{2}$ | Secret Fraction<br>$\frac{2}{3}$ | Secret Fraction<br>$\frac{3}{3}$ | Secret Fraction<br>$\frac{2}{4}$ |
| Secret Fraction<br>$\frac{3}{4}$ | Secret Fraction<br>$\frac{4}{4}$ | Secret Fraction<br>$\frac{2}{6}$ | Secret Fraction<br>$\frac{4}{6}$ |
| Secret Fraction<br>$\frac{5}{6}$ | Secret Fraction<br>$\frac{2}{8}$ | Secret Fraction<br>$\frac{3}{8}$ | Secret Fraction<br>$\frac{5}{8}$ |
|                                  |                                  |                                  |                                  |

Card Sort: Number Lines

A



Card Sort: Number Lines

B



Card Sort: Number Lines

C



Card Sort: Number Lines

D



Card Sort: Number Lines

E



Card Sort: Number Lines

F



Card Sort: Number Lines

G



Card Sort: Number Lines

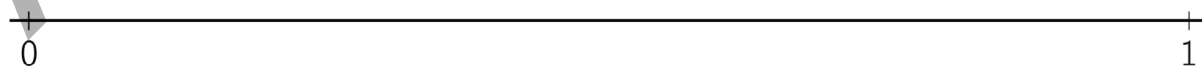
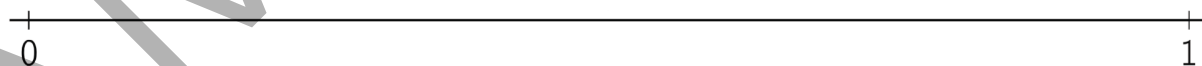
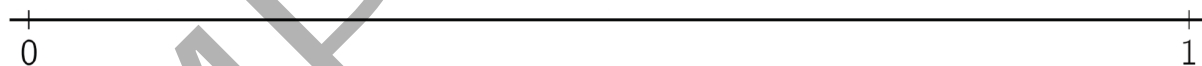
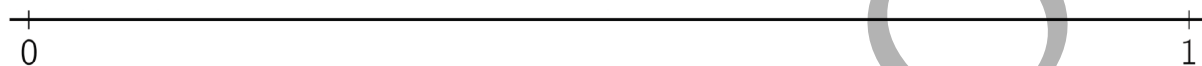
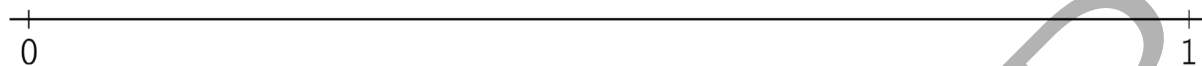
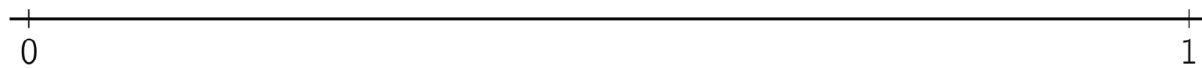
H



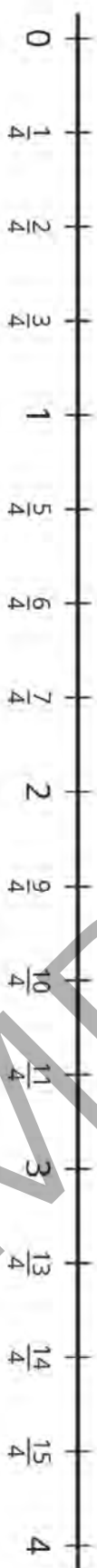
Card Sort: Number Lines

I









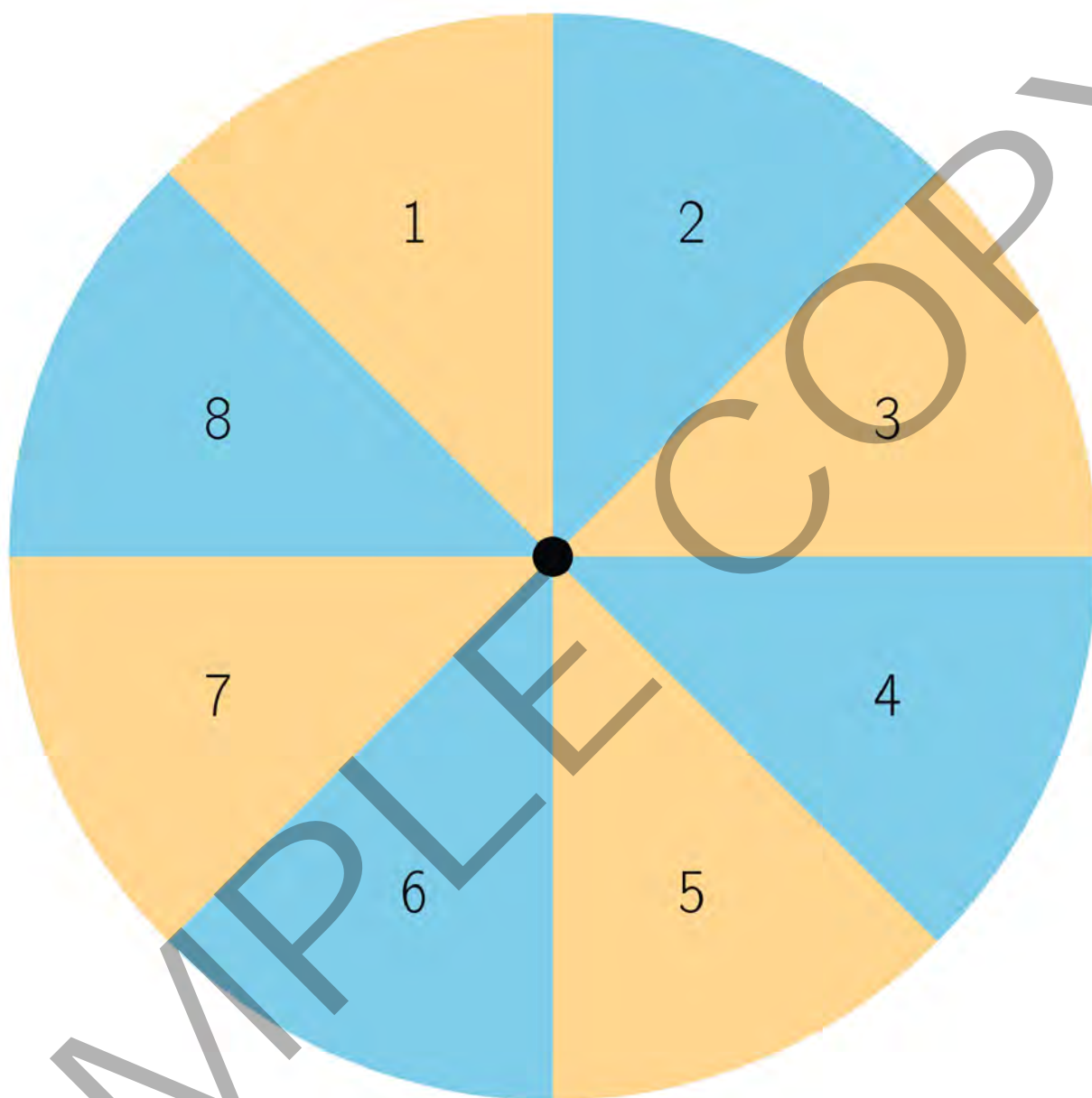


## Directions:

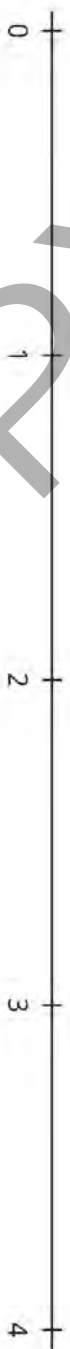
- Place a small cube on zero on each number line.
- On your turn:
  - Roll a number cube.
  - The number you rolled is the numerator of your fraction. Choose whether you want to use 2, 3, or 4 as the denominator for your fraction.
  - Count aloud as you move a cube that distance on the appropriate number line.
- Take turns rolling and moving one cube.
- If a cube lands *exactly* on the last tick mark of a number line, that partner keeps the cube and puts a new one at 0.
- The first player to collect 5 cubes wins.

## Directions:

- Place a small cube on zero on each number line.
- On your turn:
  - Roll a number cube.
  - The number you rolled is the numerator of your fraction. Choose whether you want to use 2, 3, or 4 as the denominator for your fraction.
  - Count aloud as you move a cube that distance on the appropriate number line.
- Take turns rolling and moving one cube.
- If a cube lands *exactly* on the last tick mark of a number line, that partner keeps the cube and puts a new one at 0.
- The first player to collect 5 cubes wins.

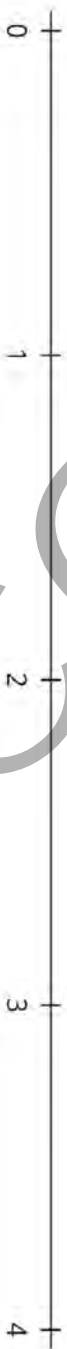


Round 1:

Use  $>$ ,  $<$ , or  $=$  to compare:

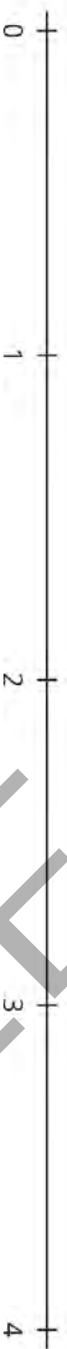
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 2:

Use  $>$ ,  $<$ , or  $=$  to compare:

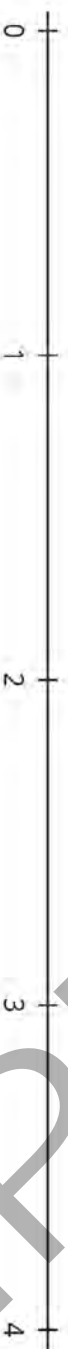
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 3:

Use  $>$ ,  $<$ , or  $=$  to compare:

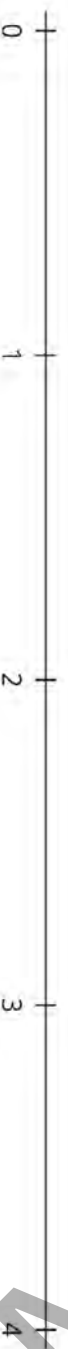
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 4:

Use  $>$ ,  $<$ , or  $=$  to compare:

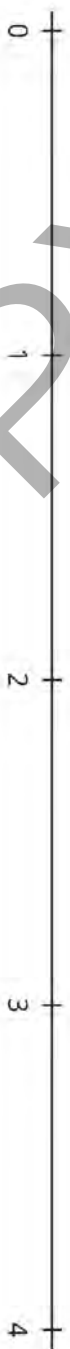
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 5:

Use  $>$ ,  $<$ , or  $=$  to compare:

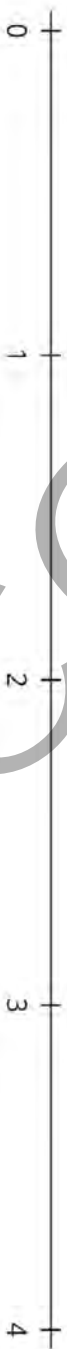
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|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 6:

Use  $>$ ,  $<$ , or  $=$  to compare:

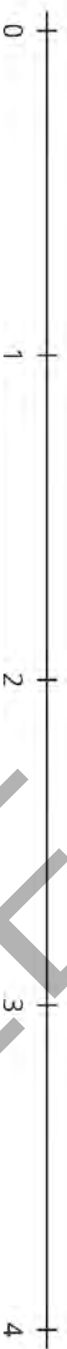
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 7:

Use  $>$ ,  $<$ , or  $=$  to compare:

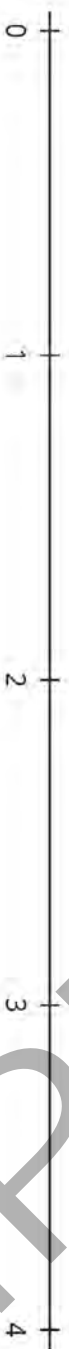
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 8:

Use  $>$ ,  $<$ , or  $=$  to compare:

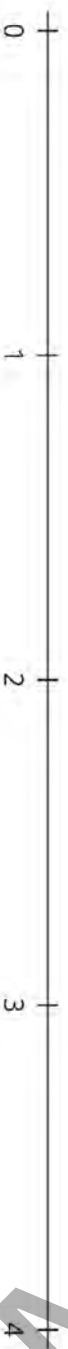
|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 9:

Use  $>$ ,  $<$ , or  $=$  to compare:

|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

Round 10:

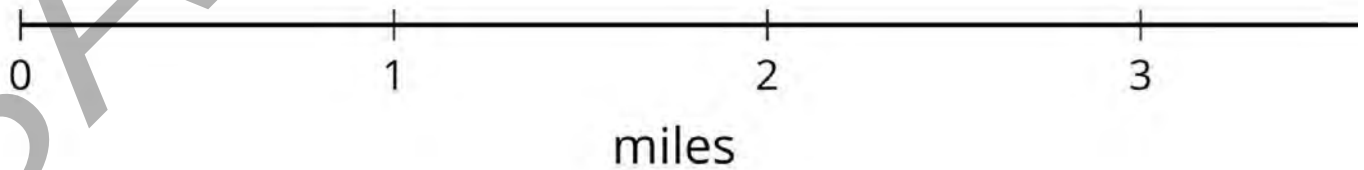
Use  $>$ ,  $<$ , or  $=$  to compare:

|                           |           |                           |
|---------------------------|-----------|---------------------------|
| $\frac{\square}{\square}$ | $\square$ | $\frac{\square}{\square}$ |
|---------------------------|-----------|---------------------------|

## Map 1: Phoenix, Arizona

Information about the race:

- It's going to be hot! There's some shade on the course, but not much.
- It's a very flat course.
- The race needs to be fun, especially for kids.

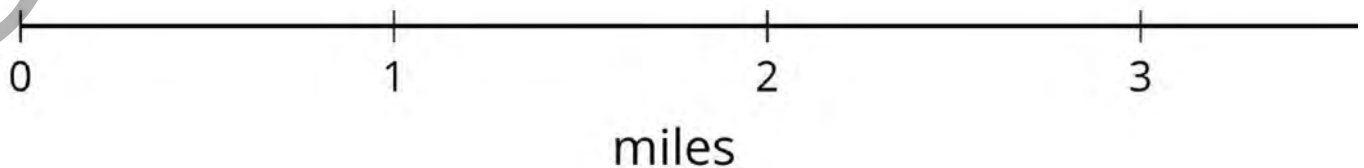
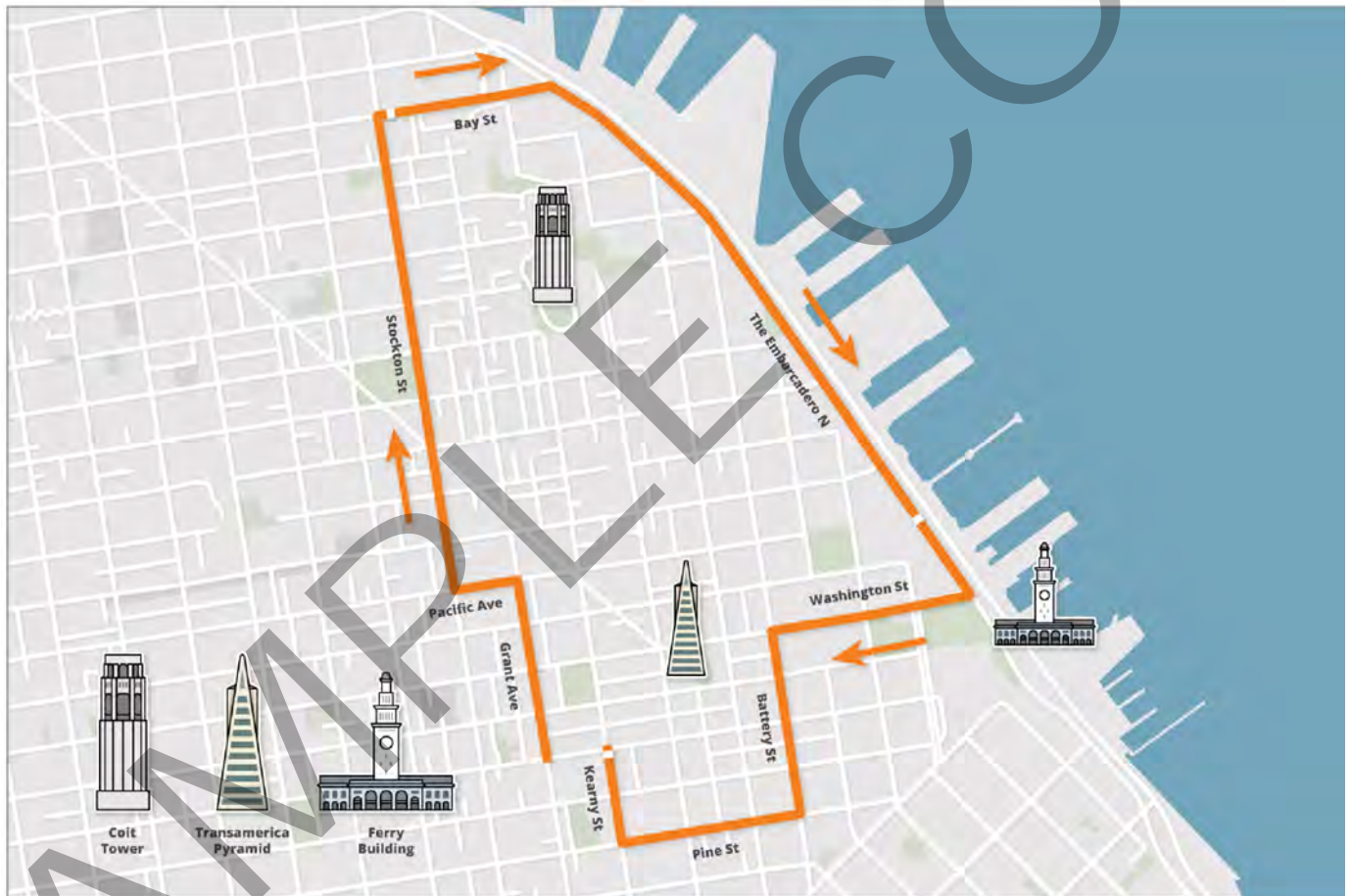




## Map 2: San Francisco, California

Information about the race:

- Not too hot, might be a little chilly when the race starts.
- It's hilly (up and down) until about  $\frac{3}{4}$  mile after the start, then you go downhill until the first mile marker. At  $\frac{9}{4}$  miles after the start, the course becomes hilly again until the 3-mile marker.
- The race is mostly for grown-ups, but some kids do join.



- It usually rains during the race.
- The course is a little hilly. The course stays close to the water and even crosses over it a few times during the first 2 miles of the race.
- The race needs to be fun for people of any age.



 GRADE 3

UNIT

**6**

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|---------------------------|-----------------------------------|-------------------|-------------|-------------------|-------------------------|--------------------------|----------------------|----------------------------|
| Activity<br>Grade3.6.1.1  | Measure around the Room Template  | 5                 | yes         | yes               | yes                     | no                       | yes                  | no                         |
| Activity<br>Grade3.6.3.WU | Notice and Wonder Rulers Template | 4                 | no          | yes               | yes                     | no                       | yes                  | no                         |
| Activity<br>Grade3.6.5.2  | Let's Make a Line Plot Template   | 2                 | yes         | no                | no                      | no                       | no                   | no                         |
| Activity<br>Grade3.6.12.2 | Card Sort Giant Pumpkins Cards    | 2                 | no          | yes               | no                      | no                       | no                   | no                         |
| Activity<br>Grade3.6.13.1 | Info Gap Pumpkin Weigh-Off Cards  | 2                 | no          | yes               | no                      | no                       | no                   | no                         |
| Activity<br>Grade3.6.13.2 | Info Gap Pig Weigh-Off Cards      | 2                 | no          | yes               | no                      | no                       | no                   | no                         |

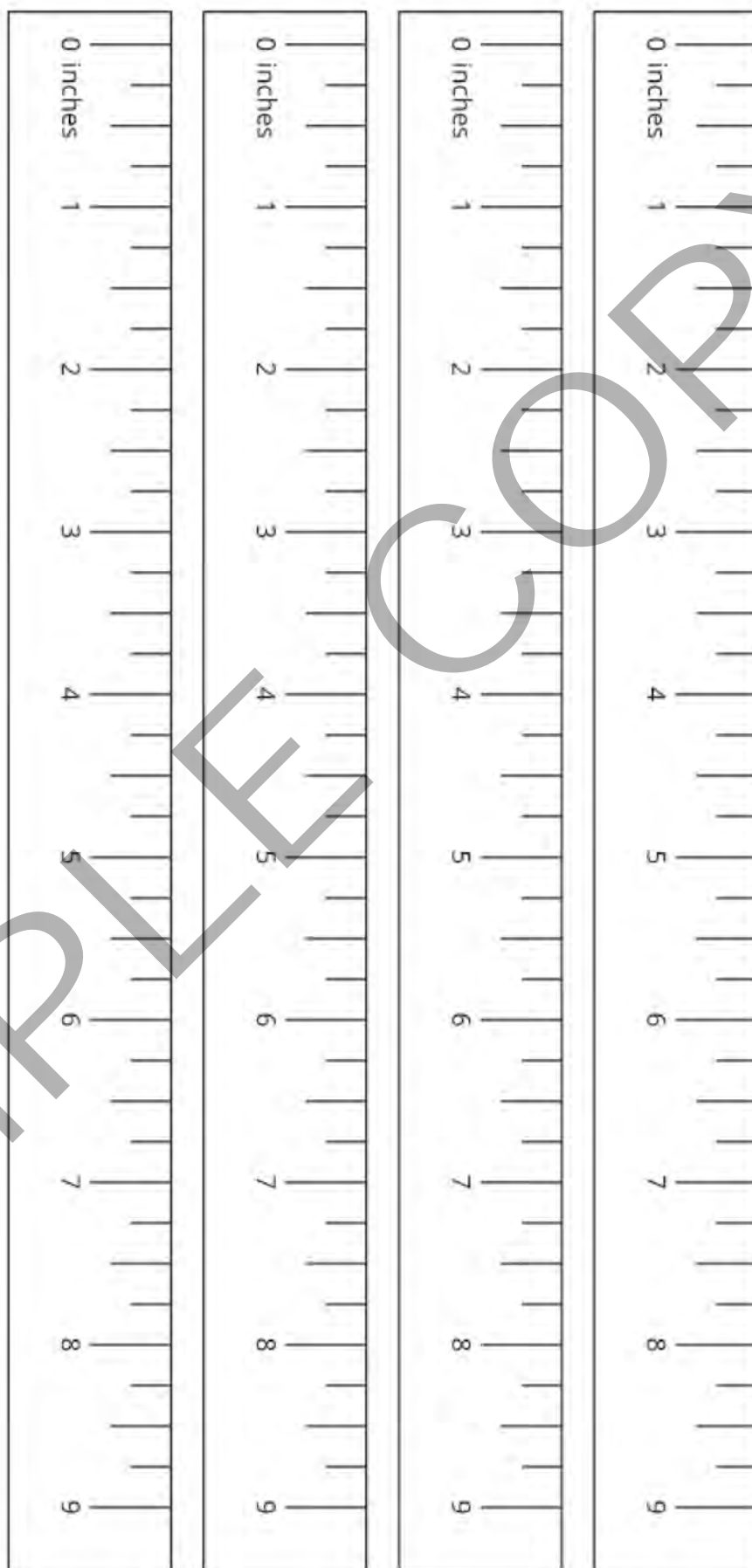
0 inches 1 2 3 4 5 6 7 8 9

0 inches 1 2 3 4 5 6 7 8 9

0 inches 1 2 3 4 5 6 7 8 9

0 inches 1 2 3 4 5 6 7 8 9

0 inches 1 2 3 4 5 6 7 8 9



SAMPLE COPY



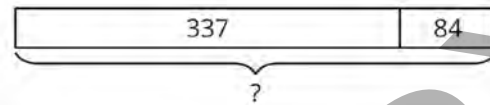
Card Sort: Giant Pumpkins

A

Giant pumpkins grow from seedlings. A farmer used 84 liters to water their seedlings, with 12 liters for each. How many seedlings were there?

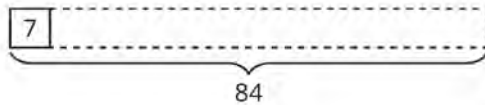
Card Sort: Giant Pumpkins

B



Card Sort: Giant Pumpkins

C



Card Sort: Giant Pumpkins

D

One farmer says he used 337 liters each day to water his giant pumpkin. Another farmer used 84 liters less each day. How much water did the other farmer use each day?

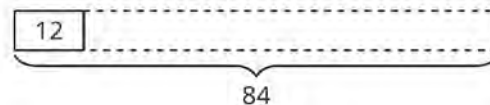
Card Sort: Giant Pumpkins

E

Each day, a farmer uses 337 liters to water pumpkins and 84 liters to water watermelons. How much water does the farmer use all together each day?

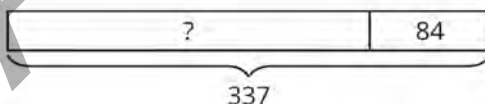
Card Sort: Giant Pumpkins

F



Card Sort: Giant Pumpkins

G



Card Sort: Giant Pumpkins

H

A giant pumpkin gained about 12 kilograms each day for 7 days. How much weight did the pumpkin gain during that week?

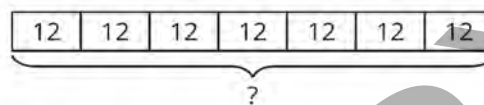
Card Sort: Giant Pumpkins

I

A pack of giant pumpkin seeds weighs 7 grams. A farmer has 84 grams of seed packs. How many packs does she have?

Card Sort: Giant Pumpkins

J



Info Gap: Pumpkin Weigh-Off  
**Problem Card 1**

A fair is holding a pumpkin weigh-off. The farmer who grew the winning pumpkin says during some days in August, his pumpkin gained a lot of weight each day.

How much did the weight of the pumpkin increase during this time?

Info Gap: Pumpkin Weigh-Off  
**Data Card 1**

- The pumpkin's weight increased 13 kilograms each day during these days in August.
- There were 5 days in August when the pumpkin gained this much weight each day.

Info Gap: Pumpkin Weigh-Off  
**Problem Card 2**

Another farmer said, "There were some days in August when my pumpkin's weight increased by a lot each day too!"

How much did the weight of the pumpkin increase each day during this time?

Info Gap: Pumpkin Weigh-Off  
**Data Card 2**

- The pumpkin's weight increased 72 kilograms during this time.
- There were 6 days in August that the pumpkin's weight increased a lot each day.



Info Gap: Pig Weigh-Off  
**Problem Card 1**

Lin stopped at the pig weigh-off. The winning pig's owner said, "This pig gained a lot of weight between the time I decided to show him at the fair and today's weigh-off."

How much weight did the pig gain?

Info Gap: Pig Weigh-Off  
**Data Card 1**

- The pig weighed 36 kilograms when his owner decided to show at the fair.
- At the fair weigh-off, the pig weighed 120 kilograms.

Info Gap: Pig Weigh-Off  
**Problem Card 2**

Lin met another pig's owner at the weigh-off. That pig's owner said, "This pig weighed a lot less when I decided to show him at the fair."

How much did the pig weigh before gaining weight for the fair?

Info Gap: Pig Weigh-Off  
**Data Card 2**

- The pig gained 67 kilograms between the time the owner decided to show him and the weigh-off at the fair.
- At the fair weigh-off, the pig weighed 116 kilograms.