TEACHER COPY · READ FIRST

Bike Park Fractions on paper · Grade 4

4 printable trips that match the 4 levels of the online game. No device or account needed.

What is inside

Pages	For	What
This page	Teacher	How to run, score and choose a next step
Trips 1–4	Students	Each trip: the level's picture and checkpoint names, five checkpoints (the last has two parts) and an unscored Talk bonus. Trips 1–2 use the game's main questions; trips 3–4 practice the same kinds of questions with new numbers.
Answer key	Teacher	Answer, the game's clue, worked steps, and what common wrong answers usually mean
Record sheet	Teacher	First answers and fixes, one row per student per trip

Run one trip (20–30 minutes)

1. Copy one trip for each student. Students may use scratch paper; no calculator is needed.
2. Check each checkpoint. After a first miss, read the **clue** from the key aloud and let the student try once more. They keep the first answer and write the new one with a star (★). This is what the online game does.
3. After a second miss, go through the **worked steps** together, as the game does.
4. On a question with several boxes or rows, every box must be right for the first answer to count.

Count and choose a next step

Count **first answers** on checkpoints 1–4, and record Part A and Part B of checkpoint 5 separately. Fixes with a star go in their own column. There is no cut score.

What you see	A next step
Fixed after the clue (★)	Ask what the clue made them notice; give the matching question on a later trip.
Missed twice	Work the steps together, then try the trip 3–4 question from the same family (same kind, new numbers).
The key's wrong-answer note keeps repeating	Teach to that error (for example, counting the unshaded parts, or comparing only the bottom numbers).
Part A right, Part B wrong	The first step is solid; talk through how Part B uses it.

Levels in this packet

- **Park 1: Bike Park Loop** — Start Trail, Wooden Ramp, Whale Jump, Skinny Bridge, Pump Track & Finish
- **Park 2: Forest Flow** — Timber Deck, Forest Berm, Big Ramps, Plank Bridge, Round Mound
- **Park 3: Community Jump Park** — Skinny Bridge, Right Berm, Whale Jump, Clay Rollers, Tabletop
- **Park 4: Moab Slickrock** — Hilltop Trail, Slickrock Curve, Sandstone Gap, Banked Wall, Red Rock Rollers

Same questions as the online game. These are the game's questions, so a student who played online may have seen some. Original practice from Pole Mountain Learning, informed by published mathematics expectations. It is not an official Pearson, NAVVY or WY-TOPP assessment and does not use their test questions. Results are practice notes, not grades, and do not predict test scores or establish mastery. Built and reviewed with AI tools; no human classroom trial of this revision yet. Free for classroom use. November 2026 edition.

TEACHER ANSWER KEY · KEEP SEPARATE FROM STUDENT COPIES

Answer key · Grade 4

Park 1: Bike Park Loop

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
1	Equivalent fractions 4.NF.1	**A**	**Clue:** Compare the painted amounts using equal-size wholes. **Worked:** The first circle has 3 of 4 equal parts painted. Splitting each part in 2 makes 6 painted parts out of 8. $\frac{3}{4} = \frac{6}{8}$.	**B:** The shaded count stayed the same while the total parts changed. **C:** This circle has a different shaded amount.
2	Equivalent fractions 4.NF.1	4 parts	**Clue:** How many of the new pieces fit inside one of the original 5 parts? **Worked:** 10 ÷ 5 = 2; each old part splits into 2. 2 × 2 = 4; the new top number is 4.	
3	Equivalent fractions 4.NF.1	With the new bottom number fixed, **Double the top number too.**	**Clue:** The amount must stay the same when both counts change. **Worked:** The denominator changed from 6 to 12, a factor of 2. Double the numerator too: 5 × 2 = 10. $\frac{5}{6} = \frac{10}{12}$.	**Halve the top number too.:** Halving 5 while doubling 6 would make the amount one fourth as large. **Keep the top number unchanged.:** Keeping 5 while doubling 6 makes $\frac{5}{12}$, half the starting distance.
4	Equivalent fractions 4.NF.1	**A**	**Clue:** The line has 6 equal intervals. How many small intervals make one third? Count 2 groups of that size. **Worked:** 6 ÷ 3 = 2 intervals per third. 2 × 2 = 4; the distance is $\frac{4}{6}$ of a lap. Marker Q is at that distance.	**B:** Count equal intervals from zero; this marker is a different distance. **C:** Count equal intervals from zero; this marker is a different distance.
5A	Equivalent fractions 4.NF.1	**C**	**Clue:** Split every original cell into two side-by-side pieces. Keep both new pieces painted wherever the original cell was painted. **Worked:** 4 of 6 cells are painted. The new panel has 12 cells, with 8 painted. $\frac{4}{6} = \frac{8}{12}$.	**A:** This keeps the old painted count after making smaller parts. **B:** That uses the old total as the painted count.
5B		The number of equal cells **doubles**. The fraction of the whole sign that is painted **stays the same**.	**Clue:** Distinguish the count of pieces from the amount painted. **Worked:** The number of cells changes from 6 to 12, so it doubles. The fraction painted stays equal: $\frac{4}{6} = \frac{8}{12}$.	**stays the same:** The count changes from 6 to 12, so it does not stay the same. **halves:** 6 becomes 12; this is doubling, not halving. **doubles:** Repartitioning the same painted region adds no paint; the amount does not double. **halves:** Repartitioning removes no paint; the fraction painted does not halve.

Talk bonus (backflip): Backward, through one full turn.

Park 2: Forest Flow

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
1	Compare fractions 4.NF.2	**B and D**	**Clue:** For each fraction, decide whether its shaded amount would be above or below one half. **Worked:** Compare each card with $\frac{1}{2}$. The two fractions more than one half are $\frac{2}{3}$, $\frac{7}{10}$.	**A:** How many twelfths make one half? **C:** How many eighths make one half?
2	Compare fractions 4.NF.2	$\frac{3}{4} < \frac{5}{6}$. $\frac{2}{3} = \frac{4}{6}$	**Clue:** Rename the distances with equal-size parts. Sometimes the distances are equal. **Worked:** $\frac{3}{4} = \frac{9}{12}$; $\frac{5}{6} = \frac{10}{12}$. 9 < 10, so $\frac{3}{4} < \frac{5}{6}$. $\frac{2}{3} = \frac{4}{6}$: doubling both counts keeps the distance equal.	
3	Compare fractions 4.NF.2	Shortest: $\frac{2}{3}$. Middle: $\frac{3}{4}$. Longest: $\frac{4}{5}$	**Clue:** Compare two distances at a time. All three use the same whole lap. **Worked:** $\frac{2}{3} = \frac{40}{60}$. $\frac{4}{5} = \frac{48}{60}$. $\frac{3}{4} = \frac{45}{60}$. With equal-size parts, compare the top numbers. Shortest to longest: $\frac{2}{3}$, $\frac{3}{4}$, $\frac{4}{5}$.	
4	Compare fractions 4.NF.2	**A**	**Clue:** Use the same whole amount when comparing the two marks. **Worked:** The gauge shows $\frac{3}{5}$ liter; the point shows $\frac{2}{3}$ liter. $\frac{3}{5}$ is less than $\frac{2}{3}$. The number-line point shows more water.	**B:** This is the other amount when the two marks are compared. **C:** These two fractions do not name the same amount.
5A	Compare fractions 4.NF.2	**B**	**Clue:** Use equivalent fractions to check the sign shown. **Worked:** $\frac{5}{6} = \frac{10}{12}$; $\frac{7}{12} = \frac{7}{12}$. The true sign is > . The comparison is correct.	**A:** The fraction sizes do not support this judgment. **C:** The two distances are not equal.
5B		**C**	**Clue:** Check each fraction's distance from zero separately. **Worked:** The first distance is at $\frac{10}{12}$. The second distance is at $\frac{7}{12}$. Both points are between 0 and 1 lap.	**A:** The first numerator was not scaled when its denominator changed. **B:** The labels are attached to the opposite points.

Talk bonus (berm): It supports the rider as they lean into the turn, helping them carry speed through the corner.

Park 3: Community Jump Park

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
1	Equivalent fractions 4.NF.1	**C**	**Clue:** Compare the painted amounts using equal-size wholes. **Worked:** The first circle has 1 of 3 equal parts painted. Splitting each part in 2 makes 2 painted parts out of 6. $\frac{1}{3} = \frac{2}{6}$.	**A:** The shaded count stayed the same while the total parts changed. **B:** This circle has a different shaded amount.
2	Equivalent fractions 4.NF.1	3 parts	**Clue:** How many of the new pieces fit inside one of the original 4 parts? **Worked:** 12 ÷ 4 = 3; each old part splits into 3. 1 × 3 = 3; the new top number is 3.	

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
3	Equivalent fractions 4.NF.1	With the new bottom number fixed, **Halve the top number too.**	**Clue:** The bottom count was divided by 2. Use the same change on the top count to keep the amount equal. **Worked:** 10 ÷ 2 = 5; the bottom number was halved. Halve the top too:6 ÷ 2 = 3. $\frac{6}{10} = \frac{3}{5}$.	**Keep the top number unchanged.:** Keeping 6 over 5 doubles the original amount. **Double the top number too.:** Doubling the top gives $\frac{12}{5}$, not the original $\frac{6}{10}$.
4	Equivalent fractions 4.NF.1	**B**	**Clue:** The line has 12 equal intervals. How many small intervals make one fourth? Count 3 groups of that size. **Worked:** 12 ÷ 4 = 3 intervals per fourth. 3 × 3 = 9; the distance is $\frac{9}{12}$ of a lap. Marker R is at that distance.	**A:** Count equal intervals from zero; this marker is a different distance. **C:** Count equal intervals from zero; this marker is a different distance.
5A	Equivalent fractions 4.NF.1	**B**	**Clue:** Join adjacent pairs along each row. Two painted small cells become one painted larger cell. **Worked:** The old panel has 6 painted cells out of 12. Joining pairs halves both counts:3 painted cells out of 6. $\frac{6}{12} = \frac{3}{6}$.	**A:** Count the painted cells in adjacent pairs, not all together as one cell. **C:** Keeping 6 painted cells after halving the total paints the whole panel.
5B		The number of equal cells **halves**. The fraction of the whole sign that is painted **stays the same**.	**Clue:** Joining pairs changes the number of pieces, while the painted region stays in the same place. **Worked:** The number of cells changes from 12 to 6, so it halves. The fraction painted stays equal: $\frac{6}{12} = \frac{3}{6}$.	**doubles:** 12 becomes 6; this is halving, not doubling. **stays the same:** The count changes from 12 to 6, so it does not stay the same. **doubles:** Repartitioning the same painted region adds no paint; the amount does not double. **halves:** Repartitioning removes no paint; the fraction painted does not halve.

Talk bonus (tabletop): A flat deck.

Park 4: Moab Slickrock

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
1	Compare fractions 4.NF.2	**A and D**	**Clue:** For each fraction, decide whether its shaded amount would be above or below one half. **Worked:** Compare each card with $\frac{1}{2}$. The two fractions less than one half are $\frac{4}{10}$, $\frac{1}{3}$.	**B:** Compare two thirds with one half. **C:** Does less than half include an amount exactly equal to half?
2	Compare fractions 4.NF.2	$\frac{7}{8} > \frac{3}{4}$	**Clue:** Both fractions refer to one whole lap. Rename three fourths in eighths before comparing. **Worked:** $\frac{3}{4} = \frac{6}{8}$. $\frac{7}{8} > \frac{6}{8}$, so $\frac{7}{8} > \frac{3}{4}$.	

#	Skill · standard	Answer	Clue (after a first miss) and worked steps	Common wrong answers
3	Compare fractions 4.NF.2	Shortest: $\frac{6}{10}$. Middle: $\frac{2}{3}$. Longest: $\frac{3}{4}$	**Clue:** Compare two distances at a time. All three use the same whole lap. **Worked:** $\frac{3}{4} = \frac{45}{60}$. $\frac{6}{10} = \frac{36}{60}$. $\frac{2}{3} = \frac{40}{60}$. With equal-size parts, compare the top numbers. Shortest to longest: $\frac{6}{10}, \frac{2}{3}, \frac{3}{4}$.	
4	Compare fractions 4.NF.2	**C**	**Clue:** Use the same whole amount when comparing the two marks. **Worked:** The gauge shows $\frac{2}{3}$ liter; the point shows $\frac{5}{6}$ liter. $\frac{2}{3}$ is less than $\frac{5}{6}$. The water gauge mark shows less water.	**A:** This is the other amount when the two marks are compared. **B:** These two fractions do not name the same amount.
5A	Compare fractions 4.NF.2	**B**	**Clue:** Use equivalent fractions to check the sign shown. **Worked:** $\frac{3}{4} = \frac{9}{12}$; $\frac{5}{12} = \frac{5}{12}$. The true sign is $>$. The comparison is backwards.	**A:** The fraction sizes do not support this judgment. **C:** The two distances are not equal.
5B		**A**	**Clue:** Check each fraction's distance from zero separately. **Worked:** The first distance is at $\frac{9}{12}$. The second distance is at $\frac{5}{12}$. Both points are between 0 and 1 lap.	**B:** The first numerator was not scaled when its denominator changed. **C:** The labels are attached to the opposite points.

Talk bonus (slickrock): Its rough sandstone surface grips the tires.

TEACHER COPY · CLASS RECORD SHEET

Bike Park Fractions on paper · Grade 4

Use initials or class codes only. One row per student per trip. Copy this page for more students.

Student (initials or code)	Park #	Checkpoint 1	Checkpoint 2	Checkpoint 3	Checkpoint 4	Checkpoint 5 · Part A	Checkpoint 5 · Part B	Next step / notes

In each checkpoint cell write ✓ if the FIRST answer was right, or ★ if the student fixed it after the clue. Leave it blank if it was still missed. Count only ✓ as first answers, as the online game does; ★ fixes are shown but counted separately. Part A and Part B of checkpoint 5 are recorded separately.