



Ready for Lift-Off

Counting numbers and whole numbers · Ages 5 to 9 · Goes with Whirly's Number Rescue, Episode 4: Ready for Lift-Off

Whirr, whirr! Welcome, sky friend! Today we load the rescue supplies. Pick your rider, then finish all 7 flights to earn your Rescue Wings!

Whirly's flight card

Counting numbers



Counting numbers are the numbers we use to count. They start at one.

Whole numbers



Whole numbers are zero and all the counting numbers. They start at zero.

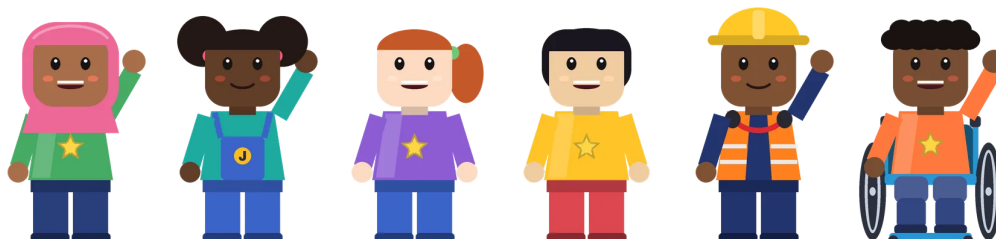
Memory trick



The word whole has the word hole inside it. And zero looks like a hole!

Our chant: Ready, set, count with me! Start at one, then two, then three!

For grown-ups: Watch the video together first. Then work through the 7 flights, one or two a day. Read the instructions aloud if your child is still learning to read. Every flight has an answer on the last page, with a short reason you can share. Cut out the question cards for the board game.





Cargo Check

Look at each number card. Tick the box where it belongs.

1

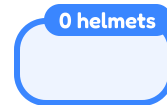
6



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

2

0



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

3

$\frac{1}{2}$



half an apple

- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

4

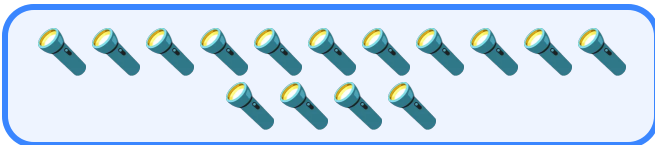
1



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

5

15



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

6

$\frac{1}{2}$

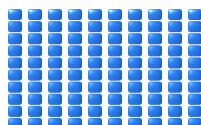


half a cookie

- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

7

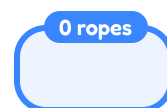
100



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number

8

0



- ☐ Counting and whole ☐ Whole, not counting
☐ Not a whole number



Check Buzz's Log

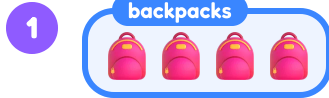
Count each picture, starting at 1. Tick Right or Mistake for each line. Then fix the mistake.



"Bzzz! I counted every rescue supply. My log is perfect!"

Backpacks: 1, 2, 3, 4. There are 4 backpacks.

- ☐ Right
☐ Mistake



Batteries: the shelf is empty. There are 0 batteries.

- ☐ Right
☐ Mistake



Bandages: 0, 1, 2, 3. There are 4 bandages.

- ☐ Right
☐ Mistake



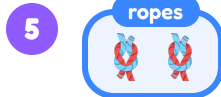
Flashlights: 1, 2, 3, 4, 5, 6. There are 6 flashlights.

- ☐ Right
☐ Mistake



Ropes: 1, 2. There are 2 ropes.

- ☐ Right
☐ Mistake



How do we fix it? Tick the fix.

- ☐ Start at 1: 1, 2, 3. There are 3 bandages.
☐ Zero comes first, so 4 bandages is right.
☐ Count backward: 3, 2, 1, 0.



Load the Cargo

Read and count each cargo card. Draw a line to the number that answers it.



Cargo cards

0 boxes

How many boxes?



The first counting number



How many safety vests?

7

8

?

What comes next?



How many compasses?

98

99

?

What comes next?



Numbers

5

.....

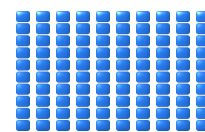
9

.....

2

..

100



0

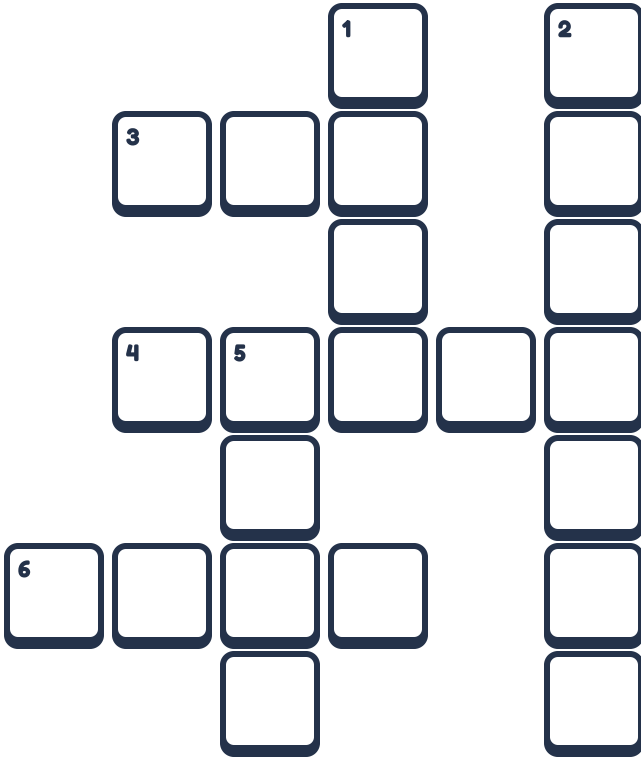
1

!



Lift-Off Crossword

Read each clue and look at its picture. Write one letter in each box.



1 down · 4 letters

An empty cargo bay has ___ boxes.



2 down · 7 letters

We can always count one more.
Counting numbers go on ___.



3 across · 3 letters

Counting numbers start at ___.



4 across · 5 letters

Zero and all the
counting numbers are
___ numbers.



5 down · 4 letters

Whole numbers have no pieces. ___ a
box is not a whole number.



6 across · 4 letters

The word whole has the word ___
inside it.

Word bank: FOREVER · HALF · HOLE · ONE · WHOLE · ZERO

5

Supply Hunt

Answer each clue and write the word in the boxes. Then find the word in the grid and color it in. Words go across → or down ↓ only.



V	M	L	V	B	K	B	X
G	G	P	H	O	N	E	L
S	C	F	C	W	M	J	D
E	Z	E	R	O	Q	Z	G
V	B	F	F	G	H	C	L
E	P	K	B	H	W	C	M
N	V	E	I	G	H	T	G
F	D	W	B	Z	V	K	B

0 tents

How many tents are in the cargo bay?

— — — —



Count the apples. How many?

— — — —



How many maps?

— — —



Count the bananas. How many?

— — — —

Need help? Here are the words, upside down: zero · seven · one · one · eight



Is It True?

Decide if each one is right. Tick the reason. Then show how sure you are.
Sky friends always explain why!



Mei says: "Zero is a whole number."

0 1 2 3 ...

Step 1. Is Mei right? ☐ Yes ☐ No

Step 2. Why? Tick one.

- ☐ Whole numbers start at zero.
- ☐ Zero is the biggest number.
- ☐ Zero is the first counting number.

Step 3. How sure are you? 😞 ☐ 😊 ☐ 😄 ☐



Rio says: "One thousand is the biggest counting number."

998 999 1000 ?

Step 1. Is Rio right? ☐ Yes ☐ No

Step 2. Why? Tick one.

- ☐ Nobody can count past one thousand.
- ☐ After 1,000 comes 1,001. We can always count one more.
- ☐ One thousand has three zeros.

Step 3. How sure are you? 😞 ☐ 😊 ☐ 😄 ☐



Jada says: "Half a cookie is a whole number."



half a cookie

Step 1. Is Jada right? ☐ Yes ☐ No

Step 2. Why? Tick one.

- ☐ Cookies are yummy.
- ☐ Whole numbers have no pieces and no halves.
- ☐ Half a cookie is the same as zero.

Step 3. How sure are you? 😞 ☐ 😊 ☐ 😄 ☐



Lift-Off Race

A game for 2 to 4 players. You need a die (or number cards 1 to 6), the question cards, and a coin or button for each player.



20 helipad	19 storm: down to 12	18	17	16
11 zoom up to 17	12	13	14	15 storm: down to 8
10	9	8	7 zoom up to 13	6
1 start	2	3 zoom up to 9	4	5

How to play: Before every roll, another player reads you a question card. Answer right, then roll and fly. Answer wrong? Talk about the answer and try again next turn. Land on a rainbow: zoom up. Land on a storm cloud: answer one more card right to fly over it, or slide down. First to the helipad wins!



Question Cards

Cut out the cards and put them face down in a pile. The answer is printed upside down at the bottom.



★ Question 1

Count the stars. Which number do you say first?



0 1 3
 . . .

Answer: 1

★ Question 2

Which number is whole, but is not a counting number?

0 2 5
 . . .

Answer: 0

★ Question 3

How many helmets are on the shelf?

0 helmets

0 1 2
 . . .

Answer: 0

★ Question 4

What number comes after 49?

47 48 49 ?



Answer: 50

★ Question 5

Is half a pizza a whole number?



half a pizza

👍 Yes 👎 No

Answer: No

★ Question 6

Where do whole numbers start?

0 1 10
 . . .

Answer: 0

★ Question 7

Do counting numbers ever stop?

🛑 Yes, they stop at 100 ♾️ No, they go on forever

Answer: No, they go on forever

★ Question 8

Count the radios. How many?



6 7 8
.....

Answer: 7

★ Question 9

Which word has the word hole inside it?

📦 whole 🏠 home 🔔 bell

Answer: whole

★ Question 10

Which row shows only counting numbers?

1 2 3 4 0 ½ 1

Answer: 1, 2, 3, 4



Rescue Wings Earned!



earned the **Counting and Whole Number Rescue Wings**

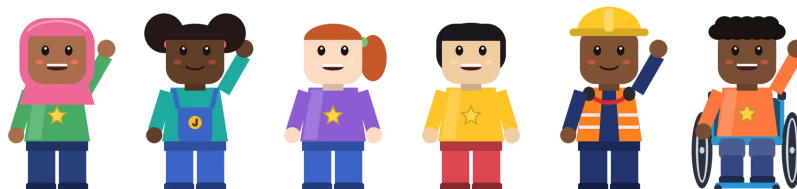
Counting numbers are the numbers we use to count. They start at 1. Whole numbers are zero and all the counting numbers. They start at 0. Both go on forever, and whole numbers have no pieces or halves.

Our chant: Ready, set, count with me! Start at one, then two, then three!

How does this math feel now? Color one.

☐ I need more practice ☐ I am getting there ☐ I can teach it!

Date _____ Signed _____



Answer Key

1. Cargo Check

- 6: Counting and whole. Count the boxes: 1, 2, 3, 4, 5, 6. Six is a counting number, so it is a whole number too.
- 0: Whole, not counting. Zero means nothing is there. Zero is a whole number, but it is not a counting number.
- $\frac{1}{2}$: Not a whole number. Half an apple is a piece. Whole numbers have no pieces and no halves.
- 1: Counting and whole. One is the very first counting number. Counting starts at 1!
- 15: Counting and whole. 15 flashlights. We count them, so 15 is a counting number and a whole number.
- $\frac{1}{2}$: Not a whole number. Half a cookie is not whole. Whole numbers have no halves.
- 100: Counting and whole. We can count all the way to 100, and past it! 100 is a counting number.
- 0: Whole, not counting. 0 ropes. Nothing is there. Zero is the hole in whole, so it is whole, but not counting.

2. Check Buzz's Log

Line 3 is the mistake. Fix: Start at 1: 1, 2, 3. There are 3 bandages. We never count zero bandages. Counting numbers start at 1, so there are 3 bandages. Every other line is right.

3. Load the Cargo

The empty cargo bay has 0 boxes.

Counting numbers start at 1.

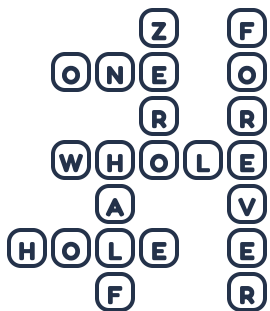
1, 2, 3, 4, 5. There are 5 safety vests.

7, 8, 9. We can always count one more.

1, 2. There are 2 compasses.

After 99 comes 100. Counting numbers go on forever.

4. Lift-Off Crossword



1 down: zero, 2 down: forever, 3 across: one, 4 across: whole, 5 down: half, 6 across: hole

5. Supply Hunt

zero, seven, one, eight



6. Is It True?

- Yes. Whole numbers start at zero.
- No. After 1,000 comes 1,001. We can always count one more.
- No. Whole numbers have no pieces and no halves.

7. Lift-Off Race question cards

1. We start counting at 1.
0. Zero is a whole number. Counting numbers start at 1.
0. The shelf is empty. That is 0 helmets.
50. 47, 48, 49, 50. We can always count one more.
- No. Half a pizza is a piece. Whole numbers have no pieces.
0. Whole numbers start at 0. Zero is the hole in whole!
- No, they go on forever. We can always count one more. Counting numbers go on forever.
7. 1, 2, 3, 4, 5, 6, 7. There are 7 radios.
- whole. W, H, O, L, E. Whole has hole inside it!
- 1, 2, 3, 4. Counting numbers are 1, 2, 3, 4 and on and on. No zero and no halves.

Step 3 (how sure?) has no right answer. A child who is right but "not sure" needs one more practice round. A child who is wrong but "very sure" has a mix-up worth talking about.

Memory trick: the word **whole** has the word **hole** inside it, and zero looks like a hole. So whole numbers have zero!