



**THIRD SPACE  
LEARNING**

# Back to School Math Quiz

A formative assessment of  
Grade 3 content to diagnose  
learning gaps and inform  
planning for the school year

**Grade 4**

## Questions

Name: .....

Class: .....

Date: .....

Score: .....

Answer the questions. You can use the space provided below the question for working out if you need it.

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1 Round 786 to the nearest ten.

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2 Round 4,345 to the nearest hundred.

---

3  $387 + 275 =$

---

4  $654 - 263 =$

---

5  $6 \times 40 =$

- 6 Jon has 8 jars with 4 marbles in each jar. Write an equation to represent the total number of marbles Jon has.

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- 7 Freya's photo album has 96 pictures. If there are 8 pictures on each page, how many pages are there?

---

- 8 Fill in the blanks to make each equation true.

$7 \times 3 =$

$\div 9 = 3$

$5 \times$  $= 40$

$48 \div$  $= 8$

- 
- 9  $3 \times 6 \times 2 =$

- 10 Use the distributive property to solve.

$$4 \times (9 + 8)$$

- 11 Solve each equation.

$6 \times 9 =$

$7 \times 2 =$

$5 \times 8 =$

$12 \times 8 =$

$4 \times 3 =$

$11 \times 4 =$

- 12 Solve each equation.

$64 \div 8 =$

$84 \div 7 =$

$32 \div 4 =$

$121 \div 11 =$

$36 \div 12 =$

$49 \div 7 =$

- 13 Mrs. Loomis ordered a shipment of pencils for her classroom. The shipment contained 12 boxes of pencils with 10 pencils in each box. She divided the pencils evenly among the 6 tables in the classroom. How many pencils were given to each table?

14 A 5th grade class was trying to raise \$500 for a charity. In the class, there are 29 children. If each child raises \$9, how much more money do they need to raise to reach their target?

15 Jana has 18 stickers. Nolan has twice as many stickers as Jana. Paul has 7 fewer stickers than Nolan. How many stickers does Paul have?

16 Find the rule and complete the table.

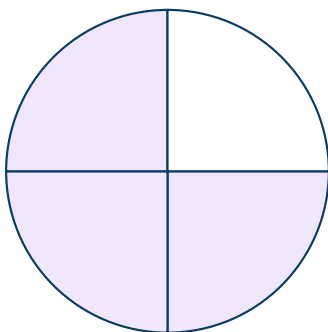
Input	Output
4	12
6	18
8	
10	
12	

Rule

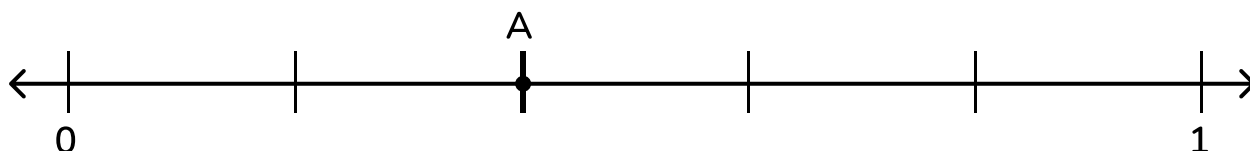
17 Circle the word that makes each statement true.

- a The product of an even number and an even number will always be [even / odd].
- b The product of an odd number and an odd number will always be [even / odd].
- 

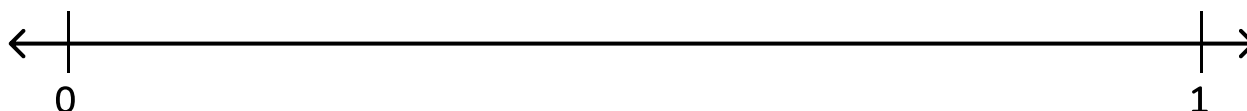
18 What fraction of the circle is shaded?



19 What fraction is represented by point A on the number line?



20 Partition the number line into thirds and label the fractions. Draw a triangle above  $\frac{2}{3}$ .



- 21 Circle the fractions that are equivalent to  $\frac{1}{2}$ .

$\frac{2}{3}$

$\frac{4}{6}$

$\frac{4}{8}$

$\frac{1}{3}$

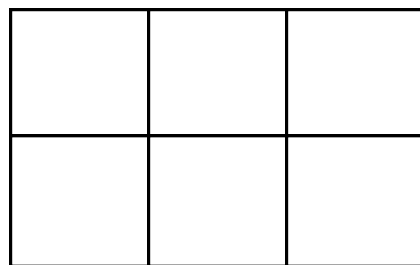
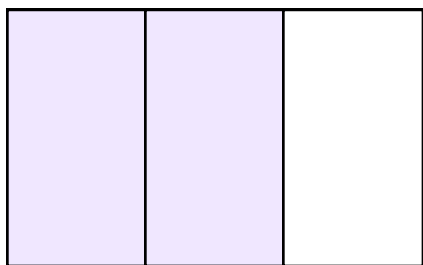
$\frac{2}{4}$

$\frac{3}{4}$

$\frac{3}{6}$

- 22 Shade the rectangle to show a fraction equivalent to  $\frac{2}{3}$ . Write the equivalent fraction in the box.

$\frac{2}{3}$



- 23 Write 8 as a fraction.



- 24 Write  $<$ ,  $>$  or  $=$  in the box to make the statement true.

$\frac{1}{8}$



$\frac{1}{6}$

- 25 Write  $<$ ,  $>$  or  $=$  in the box to make the statement true.

$\frac{5}{9}$

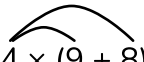


$\frac{2}{9}$

## Answers

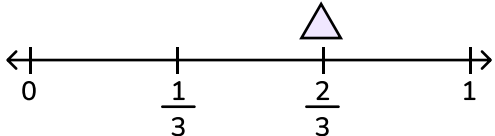
Question number	Question	Answer and Guidance	Standard
1	Round 786 to the nearest ten.	790 Ensure students identify the key digit and apply the rounding rule accurately.	3.NBT.1
2	Round 4,345 to the nearest hundred.	4,300 Ensure students identify the key digit and apply the rounding rule accurately.	3.NBT.1
3	$387 + 275 =$	662 Check that students have used regrouping methods correctly.	3.NBT.2
4	$654 - 263 =$	391 Check that students have used exchanging methods correctly.	3.NBT.2
5	$6 \times 40 =$	240 Students are expected to multiply 1-digit whole numbers by multiples of 10.	3.NBT.3
6	Jon has 8 jars with 4 marbles in each jar. Write an equation to represent the total number of marbles Jon has.	$8 \times 4 = 32$ marbles	3.OA.1 3.OA.3
7	Freya's photo album has 96 pictures. If there are 8 pictures on each page, how many pages are there?	$96 \div 8 = 12$ pages	3.OA.2 3.OA.3



Question number	Question	Answer and Guidance	Standard
8	Fill in the blanks to make each equation true. $7 \times 3 = ?$ $? \div 9 = 3$ $5 \times ? = 40$ $48 \div ? = 8$	21 27 8 6	3.OA.4
9	$3 \times 6 \times 2 =$	36 Multiplying the numbers in a different order may provide a useful discussion here since students will reach the same answer.	3.OA.5
10	Use the distributive property to solve. $4 \times (9 + 8)$	 $4 \times (9 + 8)$ $(4 \times 9) + (4 \times 8)$ $36 + 32 = 68$	3.OA.6
11	Solve each equation. $6 \times 9 =$ $7 \times 2 =$ $5 \times 8 =$ $12 \times 8 =$ $4 \times 3 =$ $11 \times 4 =$	54 14 40 96 12 44 Students are expected to be able to recall all multiplication facts up to $12 \times 12$ .	3.OA.7
12	Solve each equation. $64 \div 8 =$ $84 \div 7 =$ $32 \div 4 =$ $121 \div 11 =$ $36 \div 12 =$ $49 \div 7 =$	8 12 8 11 3 7 Students are expected to be able to recall all division facts up to $12 \times 12$ .	3.OA.7

## Back to School Math Quiz | Grade 4 | Answers

Question number	Question	Answer and Guidance	Standard
13	Mrs. Loomis ordered a shipment of pencils for her classroom. The shipment contained 12 boxes of pencils with 10 pencils in each box. She divided the pencils evenly among the 6 tables in the classroom. How many pencils were given to each table?	20 Students must first find the total number of pencils by multiplying $12 \times 10 = 120$ . Then the total number of pencils is divided by the number of tables. $120 \div 6 = 20$	3.OA.8
14	A 5th grade class was trying to raise \$500 for a charity. In the class, there are 29 children. If each child raises \$9, how much more money do they need to raise to reach their target?	\$239 Students must first multiply $29 \times \$9 = \$261$ , then subtract the total from \$500. $\$500 - \$261 = \$239$ Check students are using exchanging methods correctly. Some students may forget to include the unit (\$).	3.OA.8
15	Jana has 18 stickers. Nolan has twice as many stickers as Jana. Paul has 7 fewer stickers than Nolan. How many stickers does Paul have?	29 Students need to find how many stickers Nolan has first. $18 + 18$ (or $18 \times 2$ ) = 36. Then they need to subtract to find the number of stickers Paul has. $36 - 7 = 29$	3.OA.8
16	Find the rule and complete the table.	8: 24 10: 30 12: 36 Rule: Multiply by 3	3.OA.9

Question number	Question	Answer and Guidance	Standard
17	Circle the word that makes each statement true. a) The product of an even number and an even number will always be [even/odd]. b) The product of an odd number and an odd number will always be [even/odd].	a) even b) odd	3.OA.9
18	What fraction of the circle is shaded?	$\frac{3}{4}$	3.NF.1
19	What fraction is represented by point A on the number line?	$\frac{2}{5}$	3.NF.2
20	Partition the number line into thirds and label the fractions. Draw a triangle above $\frac{2}{3}$ .		3.NF.2
21	Circle the fractions that are equivalent to $\frac{1}{2}$ .	$\frac{4}{8}$ $\frac{2}{4}$ $\frac{3}{6}$ Check students understand that for two fractions to be equivalent, their numerators and denominators must be in the same ratio.	3.NF.3.a 3.NF.3.b
22	Shade the rectangle to show a fraction equivalent to $\frac{2}{3}$ . Write the equivalent fraction in the box.	4 boxes shaded, $\frac{4}{6}$	3.NF.3.a 3.NF.3.b




Question number	Question	Answer and Guidance	Standard
23	Write 8 as a fraction.	$\frac{8}{1}$ Students should understand how to express a whole number as a fraction.	3.NF.3.c
24	Write <, > or = in the box to make the statement true. $\frac{1}{8} ? \frac{1}{6}$	< Students should understand that when comparing fractions with the same numerator, the larger fraction will have the smaller number as a denominator.	3.NF.3.d
25	Write <, > or = in the box to make the statement true. $\frac{5}{9} ? \frac{2}{9}$	> Students should understand that when comparing fractions with the same denominator, the larger fraction will have the larger number as a numerator.	3.NF.3.d

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