



Diagnostic Assessment 1

Multiplying by 10, 100, and 1,000

Name: _____

Pretest Date: _____

Post Test Date: _____

Solve.

1 $10 \times 4 =$ _____

2 $1,000 \times 10 =$ _____

3 $3 \times 100 =$ _____

4 $10 \times 8 =$ _____

5 $9 \times 1,000 =$ _____

6 $2 \times 1,000 =$ _____

7 $1,000 \times 6 =$ _____

8 $9 \times 10 =$ _____

9 $7 \times 100 =$ _____

10 $100 \times 4 =$ _____

11 $10 \times 7 =$ _____

12 $5 \times 1,000 =$ _____

13 $100 \times 5 =$ _____

14 $100 \times 10 =$ _____

15 $10 \times 5 =$ _____

16 $8 \times 1,000 =$ _____

17 $10 \times 10 =$ _____

18 $6 \times 10 =$ _____

19 $6 \times 100 =$ _____

20 $8 \times 100 =$ _____

21 $1,000 \times 4 =$ _____

22 $3 \times 10 =$ _____

23 $3 \times 1,000 =$ _____

24 $100 \times 2 =$ _____

Diagnostic Assessment 1
Answer Key, Analysis, and Correlations

Item	Skill		
	$\times 10$	$\times 100$	$\times 1,000$
1. 10×4	40		
2. $1,000 \times 10$			10,000
3. 3×100		300	
4. 10×8	80		
5. $9 \times 1,000$			9,000
6. $2 \times 1,000$			2,000
7. $1,000 \times 6$			6,000
8. 9×10	90		
9. 7×100		700	
10. 100×4		400	
11. 10×7	70		
12. $5 \times 1,000$			5,000
13. 100×5		500	
14. 100×10			1,000
15. 10×5	50		
16. $8 \times 1,000$			8,000
17. 10×10	100		
18. 6×10	60		
19. 6×100		600	
20. 8×100		800	
21. $1,000 \times 4$			4,000
22. 3×10	30		
23. $3 \times 1,000$			3,000
24. 100×2		200	
Topic Score	/8	/7	/9
Practice	2d	2e	9a

You can practice additional fact strategies in 2g–2h.



Diagnostic Assessment 2

Dividing by 10, 100, and 1,000

Name: _____

Pretest Date: _____

Post Test Date: _____

Solve.

1 $90 \div 10 =$ _____

3 $20 \div 10 =$ _____

5 $70 \div 10 =$ _____

7 $700 \div 100 =$ _____

9 $7,000 \div 1,000 =$ _____

11 $3,000 \div 1,000 =$ _____

13 $300 \div 100 =$ _____

15 $4,000 \div 1,000 =$ _____

17 $5,000 \div 1,000 =$ _____

19 $30 \div 10 =$ _____

21 $600 \div 100 =$ _____

23 $800 \div 100 =$ _____

2 $1,000 \div 100 =$ _____

4 $60 \div 10 =$ _____

6 $80 \div 10 =$ _____

8 $2,000 \div 1,000 =$ _____

10 $50 \div 10 =$ _____

12 $200 \div 100 =$ _____

14 $1,000 \div 1,000 =$ _____

16 $500 \div 100 =$ _____

18 $8,000 \div 1,000 =$ _____

20 $400 \div 100 =$ _____

22 $9,000 \div 1,000 =$ _____

24 $40 \div 10 =$ _____

Diagnostic Assessment 2
Answer Key, Analysis, and Correlations

Item	Skill		
	$\div 10$	$\div 100$	$\div 1,000$
1. $90 \div 10$	9		
2. $1,000 \div 100$		10	
3. $20 \div 10$	2		
4. $60 \div 10$	6		
5. $70 \div 10$	7		
6. $80 \div 10$	8		
7. $700 \div 100$		7	
8. $2,000 \div 1,000$			2
9. $7,000 \div 1,000$			7
10. $50 \div 10$	5		
11. $3,000 \div 1,000$			3
12. $200 \div 100$		2	
13. $300 \div 100$		3	
14. $1,000 \div 1,000$			1
15. $4,000 \div 1,000$			4
16. $500 \div 100$		5	
17. $5,000 \div 1,000$			5
18. $8,000 \div 1,000$			8
19. $30 \div 10$	3		
20. $400 \div 100$		4	
21. $600 \div 100$		6	
22. $9,000 \div 1,000$			9
23. $800 \div 100$		8	
24. $40 \div 10$	4		
Topic Score	/8	/8	/8
Practice	2l	2m	9b

You can find additional practice in Singapore Math® Fact Fluency Grade 4.



Diagnostic Assessment 3

Multiplying by 6, 7, 8 and 9

Name: _____

Pretest Date: _____

Post Test Date: _____

Solve.

1 $7 \times 9 =$ _____

2 $9 \times 2 =$ _____

3 $7 \times 8 =$ _____

4 $9 \times 6 =$ _____

5 $8 \times 2 =$ _____

6 $7 \times 4 =$ _____

7 $1 \times 7 =$ _____

8 $6 \times 4 =$ _____

9 $4 \times 8 =$ _____

10 $6 \times 7 =$ _____

11 $6 \times 6 =$ _____

12 $4 \times 7 =$ _____

13 $3 \times 9 =$ _____

14 $3 \times 8 =$ _____

15 $8 \times 7 =$ _____

16 $9 \times 5 =$ _____

17 $4 \times 9 =$ _____

18 $5 \times 8 =$ _____

19 $6 \times 9 =$ _____

20 $6 \times 5 =$ _____

21 $6 \times 8 =$ _____

22 $6 \times 3 =$ _____

23 $7 \times 9 =$ _____

24 $8 \times 9 =$ _____

Diagnostic Assessment 3
Answer Key, Analysis, and Correlations

Item	Skill			
	$\times 6$	$\times 7$	$\times 8$	$\times 9$
1. 7×9		63		
2. 9×2				18
3. 7×8		56		
4. 9×6				54
5. 8×2			16	
6. 7×4		28		
7. 1×7		7		
8. 6×4	24			
9. 4×8			32	
10. 6×7		42		
11. 6×6	36			
12. 4×7		28		
13. 3×9				27
14. 3×8			24	
15. 8×7			56	
16. 9×5				45
17. 4×9				36
18. 5×8			40	
19. 6×9	54			
20. 6×5	30			
21. 6×8	48			
22. 6×3	18			
23. 7×9				63
24. 8×9			72	
Topic Score	/6	/6	/6	/6
Practice	7a–b	7a–b/7f	7a–b	7a–b

You can find additional practice in Singapore Math® Fact Fluency Grade 4.



Diagnostic Assessment 4

Adding and Subtracting Fractions

Name: _____

Pretest Date: _____

Post Test Date: _____

Solve. Express each answer in simplest form.

1 $\frac{1}{3} + \frac{1}{3} =$ _____

3 $\frac{3}{5} - \frac{2}{5} =$ _____

5 $\frac{1}{4} + \frac{1}{5} =$ _____

7 $\frac{5}{8} - \frac{1}{2} =$ _____

9 $\frac{3}{8} - \frac{2}{6} =$ _____

11 $\frac{1}{2} + \frac{3}{10} =$ _____

13 $\frac{3}{9} + \frac{2}{5} =$ _____

15 $\frac{3}{7} - \frac{1}{14} =$ _____

17 $\frac{7}{9} - \frac{3}{4} =$ _____

19 $\frac{4}{7} + \frac{3}{7} =$ _____

21 $\frac{6}{9} - \frac{2}{9} =$ _____

23 $\frac{2}{3} + \frac{2}{9} =$ _____

2 $\frac{2}{6} + \frac{1}{3} =$ _____

4 $\frac{3}{5} - \frac{1}{10} =$ _____

6 $\frac{1}{2} - \frac{1}{3} =$ _____

8 $\frac{4}{7} + \frac{1}{3} =$ _____

10 $\frac{3}{8} - \frac{1}{8} =$ _____

12 $\frac{2}{6} + \frac{3}{6} =$ _____

14 $\frac{4}{6} - \frac{2}{4} =$ _____

16 $\frac{3}{4} - \frac{1}{4} =$ _____

18 $\frac{2}{8} + \frac{1}{4} =$ _____

20 $\frac{1}{5} + \frac{2}{3} =$ _____

22 $\frac{8}{9} - \frac{2}{3} =$ _____

24 $\frac{3}{5} + \frac{1}{5} =$ _____

Diagnostic Assessment 4
Answer Key, Analysis, and Correlations

Item	Skill					
	(+) Like Fractions	(-) Like Fractions	(+) Compatible Fractions	(-) Compatible Fractions	(+) Unlike Fractions	(-) Unlike Fractions
1. $\frac{1}{3} + \frac{1}{3}$	$\frac{2}{3}$					
2. $\frac{2}{6} + \frac{1}{3}$			$\frac{2}{3}$			
3. $\frac{3}{5} - \frac{2}{5}$		$\frac{1}{5}$				
4. $\frac{3}{5} - \frac{1}{10}$				$\frac{1}{2}$		
5. $\frac{1}{4} + \frac{1}{5}$					$\frac{9}{20}$	
6. $\frac{1}{2} - \frac{1}{3}$						$\frac{1}{6}$
7. $\frac{5}{8} - \frac{1}{2}$				$\frac{1}{8}$		
8. $\frac{4}{7} + \frac{1}{3}$					$\frac{19}{21}$	
9. $\frac{3}{8} - \frac{2}{6}$						$\frac{1}{24}$
10. $\frac{3}{8} - \frac{1}{8}$		$\frac{1}{4}$				
11. $\frac{1}{2} + \frac{3}{10}$			$\frac{4}{5}$			
12. $\frac{2}{6} + \frac{3}{6}$	$\frac{5}{6}$					
13. $\frac{3}{9} + \frac{2}{5}$					$\frac{11}{15}$	
14. $\frac{4}{6} - \frac{2}{4}$						$\frac{1}{6}$
15. $\frac{3}{7} - \frac{1}{14}$				$\frac{5}{14}$		
16. $\frac{3}{4} - \frac{1}{4}$		$\frac{1}{2}$				
17. $\frac{7}{9} - \frac{3}{4}$						$\frac{1}{36}$
18. $\frac{2}{8} + \frac{1}{4}$			$\frac{1}{2}$			
19. $\frac{4}{7} + \frac{3}{7}$	1					
20. $\frac{1}{5} + \frac{2}{3}$					$\frac{13}{15}$	

Item	Skill					
	(+) Like Fractions	(-) Like Fractions	(+) Compatible Fractions	(-) Compatible Fractions	(+) Unlike Fractions	(-) Unlike Fractions
21. $\frac{6}{9} - \frac{2}{9}$		$\frac{4}{9}$				
22. $\frac{8}{9} - \frac{2}{3}$				$\frac{2}{9}$		
23. $\frac{2}{3} + \frac{2}{9}$			$\frac{8}{9}$			
24. $\frac{3}{5} + \frac{1}{5}$	$\frac{4}{5}$					
Topic Score	/4	/4	/4	/4	/4	/4
Practice	10b, 11d	12b	3j, 10b	12a, 12e	3d, 12a	3d, 12a

You can find additional practice in Singapore Math® Fact Fluency Grades 3 and 4.



Diagnostic Assessment 5

Multiplying and Dividing Fractions

Name: _____

Pretest Date: _____

Post Test Date: _____

Solve. Express each answer in simplest form.

1 $\frac{1}{3} \times 6 =$ _____

3 $6 \times \frac{1}{2} =$ _____

5 $3 \div \frac{1}{3} =$ _____

7 $\frac{2}{3} \div 2 =$ _____

9 $\frac{3}{5} \div 2 =$ _____

11 $\frac{1}{4} \times \frac{3}{5} =$ _____

13 $2 \div \frac{1}{4} =$ _____

15 $\frac{2}{4} \div 4 =$ _____

17 $\frac{1}{4} \times 12 =$ _____

19 $\frac{1}{5} \times 10 =$ _____

2 $\frac{1}{4} \times \frac{1}{3} =$ _____

4 $\frac{1}{2} \div 2 =$ _____

6 $7 \times \frac{1}{7} =$ _____

8 $8 \div \frac{1}{4} =$ _____

10 $8 \times \frac{1}{4} =$ _____

12 $\frac{1}{2} \times 8 =$ _____

14 $\frac{3}{5} \times \frac{2}{3} =$ _____

16 $9 \times \frac{1}{3} =$ _____

18 $\frac{1}{5} \times \frac{1}{2} =$ _____

20 $8 \div \frac{1}{6} =$ _____

Diagnostic Assessment 5
Answer Key, Analysis, and Correlations

Item	Skill				
	Multiplying a Fraction by a Whole Number	Multiplying a Whole Number by a Fraction	Multiplying a Fraction by a Fraction	Dividing a Fraction by a Whole Number	Dividing a Whole Number by a Fraction
1. $\frac{1}{3} \times 6$	2				
2. $\frac{1}{4} \times \frac{1}{3}$			$\frac{1}{12}$		
3. $6 \times \frac{1}{2}$		3			
4. $\frac{1}{2} \div 2$				$\frac{1}{4}$	
5. $3 \div \frac{1}{3}$					9
6. $7 \times \frac{1}{7}$		1			
7. $\frac{2}{3} \div 2$				$\frac{1}{3}$	
8. $8 \div \frac{1}{4}$					32
9. $\frac{3}{5} \div 2$				$\frac{3}{10}$	
10. $8 \times \frac{1}{4}$		2			
11. $\frac{1}{4} \times \frac{3}{5}$			$\frac{3}{20}$		
12. $\frac{1}{2} \times 8$	4				
13. $2 \div \frac{1}{4}$					8
14. $\frac{3}{5} \times \frac{2}{3}$			$\frac{6}{15}$		
15. $\frac{2}{4} \div 4$				$\frac{1}{8}$	
16. $9 \times \frac{1}{3}$		3			
17. $\frac{1}{4} \times 12$	3				
18. $\frac{1}{5} \times \frac{1}{2}$			$\frac{1}{10}$		
19. $\frac{1}{5} \times 10$	2				

Item	Skill				
	Multiplying a Fraction by a Whole Number	Multiplying a Whole Number by a Fraction	Multiplying a Fraction by a Fraction	Dividing a Fraction by a Whole Number	Dividing a Whole Number by a Fraction
$20. 8 \div \frac{1}{6}$					48
Topic Score	/4	/4	/4	/4	/4
Practice	12c–12d	12c–12d	4b–4c, 4f–4g, 10d	4h–4j, 10f, 12d	4i–4j, 10g, 12d

You can find additional practice in Singapore Math® Fact Fluency Grades 3 and 4.