A Story of Units®

Eureka Math™

Grade 3, Module 3

Student File_B

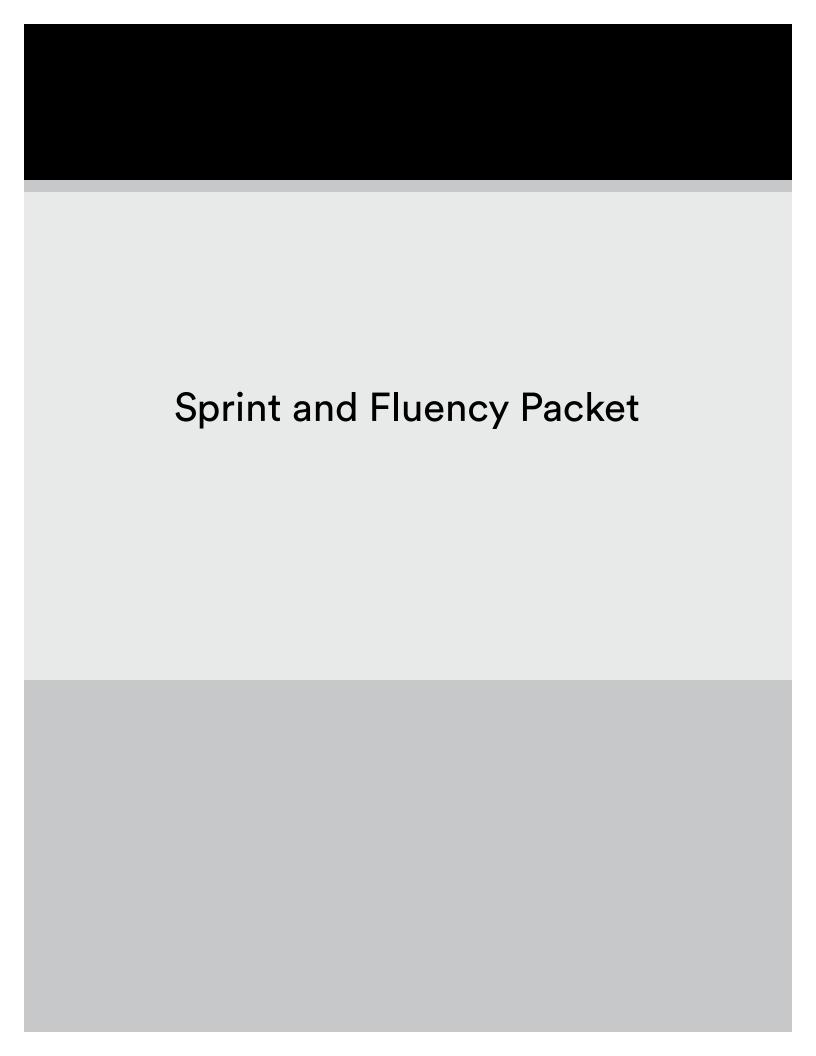
Contains Sprint and Fluency, Exit Ticket, and Assessment Materials

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10 9 8 7 6 5 4 3 2 1



A

Number Correct: _____

Mixed Multiplication

	2.4	
1.	2 × 1 =	
2.	2 × 2 =	
3.	2 × 3 =	
4.	4 × 1 =	
5.	4 × 2 =	
6.	4 × 3 =	
7.	1 × 6 =	
8.	2 × 6 =	
9.	1 × 8 =	
10.	2 × 8 =	
11.	3 × 1 =	
12.	3 × 2 =	
13.	3 × 3 =	
14.	5 × 1 =	
15.	5 × 2 =	
16.	5 × 3 =	
17.	1 × 7 =	
18.	2 × 7 =	
19.	1 × 9 =	
20.	2 × 9 =	
21.	2 × 5 =	
22.	2 × 6 =	

23.	2 × 7 =	
24.	5 × 5 =	
25.	5 × 6 =	
26.	5 × 7 =	
27.	4 × 5 =	
28.	4 × 6 =	
29.	4 × 7 =	
30.	3 × 5 =	
31.	3 × 6 =	
32.	3 × 7 =	
33.	2 × 7 =	
34.	2 × 8 =	
35.	2 × 9 =	
36.	5 × 7 =	
37.	5 × 8 =	
38.	5 × 9 =	
39.	4 × 7 =	
40.	4 × 8 =	
41.	4 × 9 =	
42.	3 × 7 =	
43.	3 × 8 =	
44.	3 × 9 =	

B

Mixed Multiplication

Number Correct: _____

1.	5 × 1 =	
2.	5 × 2 =	
3.	5 × 3 =	
4.	3 × 1 =	
5.	3 × 2 =	
6.	3 × 3 =	
7.	1 × 7 =	
8.	2 × 7 =	
9.	1 × 9 =	
10.	2 × 9 =	
11.	2 × 1 =	
12.	2 × 2 =	
13.	2 × 3 =	
14.	4 × 1 =	
15.	4 × 2 =	
16.	4 × 3 =	
17.	1 × 6 =	
18.	2 × 6 =	
19.	1 × 8 =	
20.	2 × 8 =	
21.	5 × 5 =	
22.	5 × 6 =	

23.	5 × 7 =	
24.	2 × 5 =	
25.	2 × 6 =	
26.	2 × 7 =	
27.	3 × 5 =	
28.	3 × 6 =	
29.	3 × 7 =	
30.	4 × 5 =	
31.	4 × 6 =	
32.	4 × 7 =	
33.	5 × 7 =	
34.	5 × 8 =	
35.	5 × 9 =	
36.	2 × 7 =	
37.	2 × 8 =	
38.	2 × 9 =	
39.	3 × 7 =	
40.	3 × 8 =	
41.	3 × 9 =	
42.	4 × 7 =	
43.	4 × 8 =	
44.	4 × 9 =	

Number Correct: _____

Use the Commutative Property to Multiply

1. 2 × 2 = 2. 2 × 3 = 3. 3 × 2 = 4. 2 × 4 = 5. 4 × 2 = 6. 2 × 5 = 7. 5 × 2 = 8. 2 × 6 = 9. 6 × 2 = 10. 2 × 7 = 11. 7 × 2 = 12. 2 × 8 = 13. 8 × 2 = 14. 2 × 9 = 15. 9 × 2 = 16. 2 × 10 = 17. 10 × 2 = 18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 = 22. 5 × 5 =			
3.	1.	2 × 2 =	
4. $2 \times 4 =$ 5. $4 \times 2 =$ 6. $2 \times 5 =$ 7. $5 \times 2 =$ 8. $2 \times 6 =$ 9. $6 \times 2 =$ 10. $2 \times 7 =$ 11. $7 \times 2 =$ 12. $2 \times 8 =$ 13. $8 \times 2 =$ 14. $2 \times 9 =$ 15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	2.	2 × 3 =	
5. $4 \times 2 =$ 6. $2 \times 5 =$ 7. $5 \times 2 =$ 8. $2 \times 6 =$ 9. $6 \times 2 =$ 10. $2 \times 7 =$ 11. $7 \times 2 =$ 12. $2 \times 8 =$ 13. $8 \times 2 =$ 14. $2 \times 9 =$ 15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	3.	3 × 2 =	
6.	4.	2 × 4 =	
7.	5.	4 × 2 =	
8. 2 × 6 = 9. 6 × 2 = 10. 2 × 7 = 11. 7 × 2 = 12. 2 × 8 = 13. 8 × 2 = 14. 2 × 9 = 15. 9 × 2 = 16. 2 × 10 = 17. 10 × 2 = 18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 =	6.	2 × 5 =	
9. 6 × 2 = 10. 2 × 7 = 11. 7 × 2 = 12. 2 × 8 = 13. 8 × 2 = 14. 2 × 9 = 15. 9 × 2 = 16. 2 × 10 = 17. 10 × 2 = 18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 =	7.	5 × 2 =	
10. 2 × 7 = 11. 7 × 2 = 12. 2 × 8 = 13. 8 × 2 = 14. 2 × 9 = 15. 9 × 2 = 16. 2 × 10 = 17. 10 × 2 = 18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 =	8.	2 × 6 =	
11. $7 \times 2 =$ 12. $2 \times 8 =$ 13. $8 \times 2 =$ 14. $2 \times 9 =$ 15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	9.	6 × 2 =	
12. $2 \times 8 =$ 13. $8 \times 2 =$ 14. $2 \times 9 =$ 15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	10.	2 × 7 =	
13. 8 × 2 = 14. 2 × 9 = 15. 9 × 2 = 16. 2 × 10 = 17. 10 × 2 = 18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 =	11.	7 × 2 =	
14. $2 \times 9 =$ 15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	12.	2 × 8 =	
15. $9 \times 2 =$ 16. $2 \times 10 =$ 17. $10 \times 2 =$ 18. $5 \times 3 =$ 19. $3 \times 5 =$ 20. $5 \times 4 =$ 21. $4 \times 5 =$	13.	8 × 2 =	
16.	14.	2 × 9 =	
17.	15.	9 × 2 =	
18. 5 × 3 = 19. 3 × 5 = 20. 5 × 4 = 21. 4 × 5 =	16.	2 × 10 =	
19.	17.	10 × 2 =	
20. 5 × 4 = 21. 4 × 5 =	18.	5 × 3 =	
21. 4 × 5 =	19.	3 × 5 =	
	20.	5 × 4 =	
22. 5 × 5 =	21.	4 × 5 =	
	22.	5 × 5 =	

23.	5 × 6 =	
24.	6 × 5 =	
25.	5 × 7 =	
26.	7 × 5 =	
27.	5 × 8 =	
28.	8 × 5 =	
29.	5 × 9 =	
30.	9 × 5 =	
31.	5 × 10 =	
32.	10 × 5 =	
33.	3 × 3 =	
34.	3 × 4 =	
35.	4 × 3 =	
36.	3 × 6 =	
37.	6 × 3 =	
38.	3 × 7 =	
39.	7 × 3 =	
40.	3 × 8 =	
41.	8 × 3 =	
42.	3 × 9 =	
43.	9 × 3 =	
44.	4 × 4 =	



Use the Commutative Property to Multiply

Number Correct:	
Improvement:	

1.	5 × 2 =	
2.	2 × 5 =	
3.	5 × 3 =	
4.	3 × 5 =	
5.	5 × 4 =	
6.	4 × 5 =	
7.	5 × 5 =	
8.	5 × 6 =	
9.	6 × 5 =	
10.	5 × 7 =	
11.	7 × 5 =	
12.	5 × 8 =	
13.	8 × 5 =	
14.	5 × 9 =	
15.	9 × 5 =	
16.	5 × 10 =	
17.	10 × 5 =	
18.	2 × 2 =	
19.	2 × 3 =	
20.	3 × 2 =	
21.	2 × 4 =	
22.	4 × 2 =	
22.	4 × 2 =	

23.	6 × 2 =	
24.	2 × 6 =	
25.	2 × 7 =	
26.	7 × 2 =	
27.	2 × 8 =	
28.	8 × 2 =	
29.	2 × 9 =	
30.	9 × 2 =	
31.	2 × 10 =	
32.	10 × 2 =	
33.	3 × 3 =	
34.	3 × 4 =	
35.	4 × 3 =	
36.	3 × 6 =	
37.	6 × 3 =	
38.	3 × 7 =	
39.	7 × 3 =	
40.	3 × 8 =	
41.	8 × 3 =	
42.	3 × 9 =	
43.	9 × 3 =	
44.	4 × 4 =	

multiply by 6 (1-5)



multiply by 6 (6–10)



multiply by 7 (1-5)



multiply by 7 (6-10)



multiply by 8 (1-5)



multiply by 8 (6–10)



Number Correct: _____

Multiply or divide by 8

1.	2 × 8 =	
2.	3 × 8 =	
3.	4 × 8 =	
4.	5 × 8 =	
5.	1 × 8 =	
6.	16 ÷ 8 =	
7.	24 ÷ 8 =	
8.	40 ÷ 8 =	
9.	8 ÷ 1 =	
10.	32 ÷ 8 =	
11.	6 × 8 =	
12.	7 × 8 =	
13.	8 × 8 =	
14.	9 × 8 =	
15.	10 × 8 =	
16.	64 ÷ 8 =	
17.	56 ÷ 8 =	
18.	72 ÷ 8 =	
19.	48 ÷ 8 =	
20.	80 ÷ 8 =	
21.	×8 = 40	
22.	×8=16	

23.	×8=80	
24.	×8=32	
25.	×8=24	
26.	80 ÷ 8 =	
27.	40 ÷ 8 =	
28.	8 ÷ 1 =	
29.	16 ÷ 8 =	
30.	24 ÷ 8 =	
31.	×8=48	
32.	×8=56	
33.	×8=72	
34.	×8 = 64	
35.	56 ÷ 8 =	
36.	72 ÷ 8 =	
37.	48 ÷ 8 =	
38.	64 ÷ 8 =	
39.	11 × 8 =	
40.	88 ÷ 8 =	
41.	12 × 8 =	
42.	96 ÷ 8 =	
43.	14 × 8 =	
44.	112 ÷ 8 =	

Number Correct: _____ Improvement: _____

Multiply or divide by 8

1.	1 × 8 =	
2.	2 × 8 =	
3.	3 × 8 =	
4.	4 × 8 =	
5.	5 × 8 =	
6.	24 ÷ 8 =	
7.	16 ÷ 8 =	
8.	32 ÷ 8 =	
9.	8 ÷ 1 =	
10.	40 ÷ 8 =	
11.	10 × 8 =	
12.	6 × 8 =	
13.	7 × 8 =	
14.	8 × 8 =	
15.	9 × 8 =	
16.	56 ÷ 8 =	
17.	48 ÷ 8 =	
18.	64 ÷ 8 =	
19.	80 ÷ 8 =	
20.	72 ÷ 8 =	
21.	×8 = 16	
22.	×8 = 40	

23.	×8=48	
24.	×8=80	
25.	×8=24	
26.	16 ÷ 8 =	
27.	8 ÷ 1 =	
28.	80 ÷ 8 =	
29.	40 ÷ 8 =	
30.	24 ÷ 8 =	
31.	×8=64	
32.	×8=32	
33.	×8=72	
34.	×8=56	
35.	64 ÷ 8 =	
36.	72 ÷ 8 =	
37.	48 ÷ 8 =	
38.	56 ÷ 8 =	
39.	11 × 8 =	
40.	88 ÷ 8 =	
41.	12 × 8 =	
42.	96 ÷ 8 =	
43.	13 × 8 =	
44.	104 ÷ 8 =	

multiply by 9 (1-5)



multiply by 9 (6-10)



Number Correct: _____

Multiply or divide by 9

1.	2 × 9 =	
2.	3 × 9 =	
3.	4 × 9 =	
4.	5 × 9 =	
5.	1 × 9 =	
6.	18 ÷ 9 =	
7.	27 ÷ 9 =	
8.	45 ÷ 9 =	
9.	9 ÷ 9 =	
10.	36 ÷ 9 =	
11.	6 × 9 =	
12.	7 × 9 =	
13.	8 × 9 =	
14.	9 × 9 =	
15.	10 × 9 =	
16.	72 ÷ 9 =	
17.	63 ÷ 9 =	
18.	81 ÷ 9 =	
19.	54 ÷ 9 =	
20.	90 ÷ 9 =	
21.	×9=45	
22.	×9=9	

23.	×9=90	
24.	×9=18	
25.	×9=27	
26.	90 ÷ 9 =	
27.	45 ÷ 9 =	
28.	9 ÷ 9 =	
29.	18 ÷ 9 =	
30.	27 ÷ 9 =	
31.	×9=54	
32.	×9=63	
33.	×9=81	
34.	×9=72	
35.	63 ÷ 9 =	
36.	81 ÷ 9 =	
37.	54 ÷ 9 =	
38.	72 ÷ 9 =	
39.	11 × 9 =	
40.	99 ÷ 9 =	
41.	12 × 9 =	
42.	108 ÷ 9 =	
43.	14 × 9 =	
44.	126 ÷ 9 =	

Multiply or divide by 9

Number Correct:	
Improvement:	

1.	1 × 9 =	
2.	2 × 9 =	
3.	3 × 9 =	
4.	4 × 9 =	
5.	5 × 9 =	
6.	27 ÷ 9 =	
7.	18 ÷ 9 =	
8.	36 ÷ 9 =	
9.	9 ÷ 9 =	
10.	45 ÷ 9 =	
11.	10 × 9 =	
12.	6 × 9 =	
13.	7 × 9 =	
14.	8 × 9 =	
15.	9 × 9 =	
16.	63 ÷ 9 =	
17.	54 ÷ 9 =	
18.	72 ÷ 9 =	
19.	90 ÷ 9 =	
20.	81 ÷ 9 =	
21.	×9=9	
22.	×9=45	

23.	×9=18	
24.	×9=90	
25.	×9=27	
26.	18 ÷ 9 =	
27.	9 ÷ 9 =	
28.	90 ÷ 9 =	
29.	45 ÷ 9 =	
30.	27 ÷ 9 =	
31.	×9=27	
32.	×9=36	
33.	×9=81	
34.	×9=63	
35.	72 ÷ 9 =	
36.	81 ÷ 9 =	
37.	54 ÷ 9 =	
38.	63 ÷ 9 =	
39.	11 × 9 =	
40.	99 ÷ 9 =	
41.	12 × 9 =	
42.	108 ÷ 9 =	
43.	13 × 9 =	
44.	117 ÷ 9 =	

Number Correct: _____

Multiply and Divide with 1 and 0

1.	× 1 = 2
	×1=3
2.	
3.	×1=4
4.	×1=9
5.	8 × = 0
6.	9 × = 0
7.	4 × = 0
8.	5 × = 5
9.	6 × = 6
10.	7 × = 7
11.	3 × = 3
12.	0 ÷ 1 =
13.	0 ÷ 2 =
14.	0 ÷ 3 =
15.	0 ÷ 6 =
16.	1 × = 1
17.	4 ÷ = 4
18.	5 ÷ = 5
19.	6 ÷ = 6
20.	8 ÷ = 8
21.	×1=5
22.	3 × = 0

23.	9 ÷ = 9	
24.	8 × = 8	
25.	×1=1	
26.	0 ÷ 3 =	
27.	×1=7	
28.	6 × = 0	
29.	4 × = 4	
30.	0 ÷ 8 =	
31.	0 × = 0	
32.	1 ÷ 1 =	
33.	×1=24	
34.	17 × = 0	
35.	32 × = 32	
36.	0 ÷ 19 =	
37.	46 × = 0	
38.	0 ÷ 51 =	
39.	64 × = 64	
40.	×1=79	
41.	0 ÷ 82 =	
42.	×1=96	
43.	27 × = 27	
44.	43 × = 0	

Multiply and Divide with 1 and 0

Number Correct: _____ Improvement: _____

1.	×1=3	
2.	×1=4	
3.	×1=5	
4.	×1=8	
5.	7 × = 0	
6.	8 × = 0	
7.	3 × = 0	
8.	4 × = 4	
9.	5 × = 5	
10.	6 × = 6	
11.	2 × = 2	
12.	0 ÷ 2 =	
13.	0 ÷ 3 =	
14.	0 ÷ 4 =	
15.	0 ÷ 7 =	
16.	1 × = 1	
17.	3 ÷ = 3	
18.	4 ÷ = 4	
19.	5 ÷ = 5	
20.	7 ÷ = 7	
21.	×1=6	
22.	4 × = 0	

23.	8 ÷ = 8	
24.	7 × = 7	
25.	×1=1	
26.	0 ÷ 5 =	
27.	×1=9	
28.	5 × = 0	
29.	9 × = 9	
30.	0 ÷ 6 =	
31.	1 ÷ 1 =	
32.	0 × = 0	
33.	×1=34	
34.	16 × = 0	
35.	31 × = 31	
36.	0 ÷ 18 =	
37.	45 × = 0	
38.	0 ÷ 52 =	
39.	63 × = 63	
40.	×1=78	
41.	0 ÷ 81 =	
42.	×1=97	
43.	26 × = 26	
44.	42 × = 0	

Number Correct: _____

Multiply by Multiples of 10

1.	2 × 3 =	
2.	2 × 30 =	
3.	20 × 3 =	
4.	2 × 2 =	
5.	2 × 20 =	
6.	20 × 2 =	
7.	4 × 2 =	
8.	4 × 20 =	
9.	40 × 2 =	
10.	5 × 3 =	
11.	50 × 3 =	
12.	3 × 50 =	
13.	4 × 4 =	
14.	40 × 4 =	
15.	4 × 40 =	
16.	6 × 3 =	
17.	6 × 30 =	
18.	60 × 3 =	
19.	7 × 5 =	
20.	70 × 5 =	
21.	7 × 50 =	
22.	8 × 4 =	

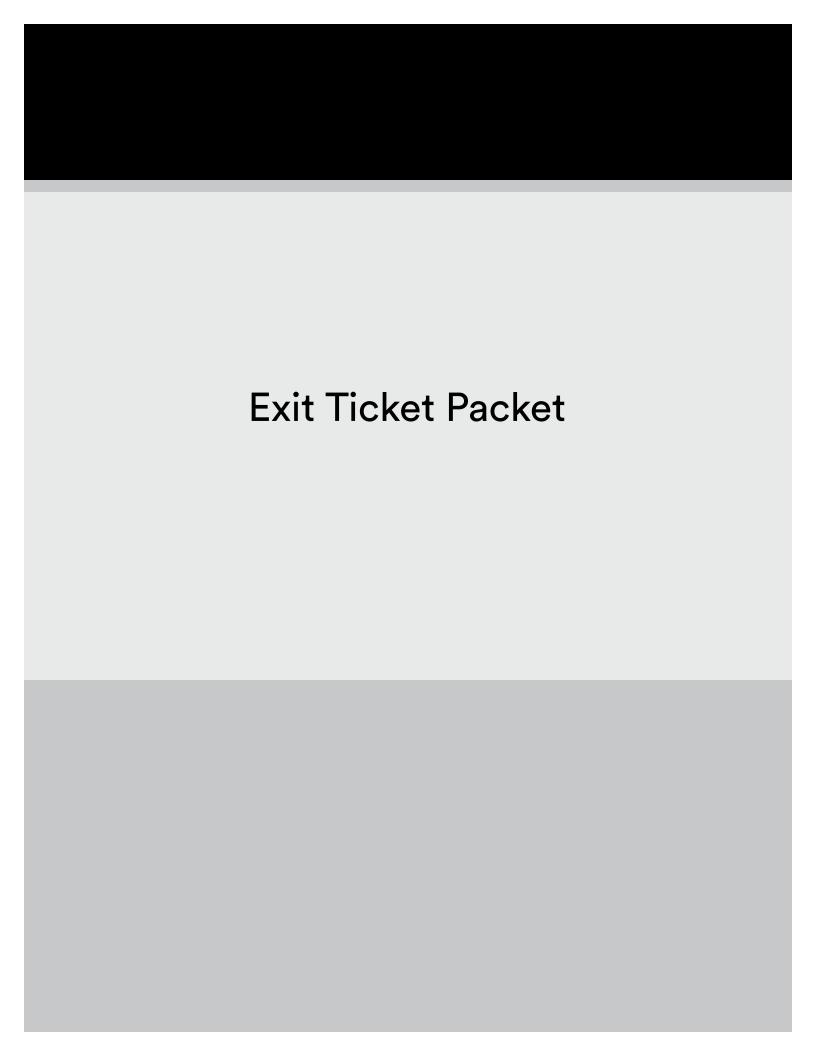
23.	8 × 40 =	
24.	80 × 4 =	
25.	9 × 6 =	
26.	90 × 6 =	
27.	2 × 5 =	
28.	2 × 50 =	
29.	3 × 90 =	
30.	40 × 7 =	
31.	5 × 40 =	
32.	6 × 60 =	
33.	70 × 6=	
34.	8 × 70 =	
35.	80 × 6 =	
36.	9 × 70 =	
37.	50 × 6 =	
38.	8 × 80 =	
39.	9 × 80 =	
40.	60 × 8 =	
41.	70 × 7 =	
42.	5 × 80 =	
43.	60 × 9 =	
44.	9 × 90 =	

Multiply by Multiples of 10

 Number Correct:
 Improvement:

1.	4 × 2 =	
2.	4 × 20 =	
3.	40 × 2 =	
4.	3 × 3 =	
5.	3 × 30 =	
6.	30 × 3 =	
7.	3 × 2 =	
8.	3 × 20 =	
9.	30 × 2 =	
10.	5 × 5 =	
11.	50 × 5 =	
12.	5 × 50 =	
13.	4 × 3 =	
14.	40 × 3 =	
15.	4 × 30 =	
16.	7 × 3 =	
17.	7 × 30 =	
18.	70 × 3 =	
19.	6 × 4 =	
20.	60 × 4 =	
21.	6 × 40 =	
22.	9 × 4 =	

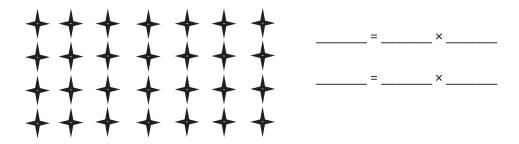
23.	9 × 40 =	
24.	90 × 4 =	
25.	8 × 6 =	
26.	80 × 6 =	
27.	5 × 2 =	
28.	5 × 20 =	
29.	3 × 80 =	
30.	40 × 8 =	
31.	4 × 50 =	
32.	8 × 80 =	
33.	90 × 6 =	
34.	6 × 70 =	
35.	60 × 6 =	
36.	7 × 70 =	
37.	60 × 5 =	
38.	6 × 80 =	
39.	7 × 80 =	
40.	80 × 6 =	
41.	90 × 7 =	
42.	8 × 50 =	
43.	80 × 9 =	
44.	7 × 90 =	



Lesson 1 Exit Ticket

Date _____

1. Use the array to write two different multiplication facts.



2. Karen says, "If I know $3 \times 8 = 24$, then I know the answer to 8×3 ." Explain why this is true.



Name	Date	
Use a fives fact to help you solve 7 × 6. Show your work using p	ictures, numbers, or words.	



Date _____

Find the value of the unknown in Problems 1–4.

- 1. $z = 5 \times 9$ z = ____
- 2. $30 \div 6 = v$ v = ____
- 3. $8 \times w = 24$ w = ____
- 4. $y \div 4 = 7$ y = ____
- 5. Mr. Strand waters his rose bushes for a total of 15 minutes. He waters each rose bush for 3 minutes. How many rose bushes does Mr. Strand water? Represent the problem using multiplication and division sentences and a letter for the unknown. Then, solve the problem.

____× ____ = ____ _____÷ ____= ____

1. Sylvia solves 6×9 by adding 48 + 6. Show how Sylvia breaks apart and bonds her numbers to complete the ten. Then, solve.

- 2. Skip-count by six to solve the following:
 - a. 8 × 6 = _____

b. 54 ÷ 6 = _____

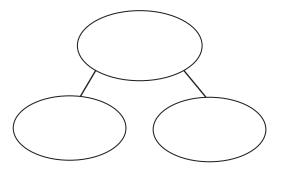


Date ____

Complete the count-by seven sequence below. Then, write a multiplication equation and a division equation to represent each number in the sequence.

Name	Date	

1. A parking lot has space for 48 cars. Six cars can park in 1 row. Break apart 48 to find how many rows there are in the parking lot.



2. Malia solves 6×7 using $(5 \times 7) + 7$. Leonidas solves 6×7 using $(6 \times 5) + (6 \times 2)$. Who is correct? Draw a picture to help explain your answer.



Na	ne Date	
	del each problem with a drawing. Then, write an equation using a letter to represent the unknown, a ve for the unknown.	nd
1.	Three boys and three girls each buy 7 bookmarks. How many bookmarks do they buy all together?	
2.	Seven friends equally share the cost of a \$56 meal. How much does each person pay?	



Name _____ Date _____

1. Use parentheses to make the equations true.

a.
$$24 = 32 - 14 + 6$$

b.
$$12 = 32 - 14 + 6$$

c.
$$2 + 8 \times 7 = 70$$

d.
$$2 + 8 \times 7 = 58$$

2. Marcos solves $24 \div 6 + 2 =$ _____. He says it equals 6. Iris says it equals 3. Show how the position of parentheses in the equation can make both answers true.



Name	Date
Simplify to find the answer to 18×3 . Show your work, and explain	in your strategy.



Use the break apart and distribute strategy to solve the following problem. You may choose whether or not to draw an array.

7 × 8 =____



Name	Date		
Erica bı	rica buys some packs of rubber bracelets. There are 8 bracelets in each pack.		
a.	How many packs of rubber bracelets does she buy if she has a total of 56 bracelets? Draw a tape diagram, and label the total number of packages as p . Write an equation, and solve for p .		
b.	After giving some bracelets away, Erica has 18 left. How many bracelets did she give away?		



Name _

Date _____

1. Each



has a value of **9**. Complete the equations to find the total value of the tower of blocks.



2. Hector solves 9 × 8 by subtracting 1 eight from 10 eights. Draw a model, and explain Hector's strategy.

Name _____

1. $6 \times 9 = 54$

 $8 \times 9 = 72$

What is 10 more than 54? _____

What is 10 more than 72? _____

What is 1 less? _____

What is 1 less? _____

7 × 9 = _____

9 × 9 = _____

2. Explain the pattern used in Problem 1.

Name	Date	
•	-	

Donald writes $6 \times 9 = 54$. Explain two strategies you could use to check his work.



Na	me Date
Use	e a letter to represent the unknown.
1.	Mrs. Aquino pours 36 liters of water equally into 9 containers. How much water is in each container?
2.	Marlon buys 9 packs of hot dogs. There are 6 hot dogs in each pack. After the barbeque, 35 hot dogs are left over. How many hot dogs were eaten?



Name _____

1. Complete.

2. Luis divides 8 by 0 and says it equals 0. Is he correct? Explain why or why not.

Name	Date

1. Use what you know to find the product of 8×12 or 6 eights + 6 eights.

2. Luis says $3 \times 233 = 626$. Use what you learned about odd times odd to explain why Luis is wrong.



Name	Date	
Use the RDW process to solve. Explain why your answer is reason	nable.	

On Saturday, Warren swims laps in the pool for 45 minutes. On Sunday, he runs 8 miles. It takes him 9 minutes to run each mile. How long does Warren spend exercising over the weekend?



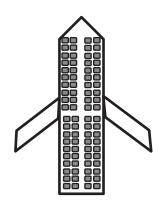
Name	Date	

1. Use the chart to complete the blanks in the equations.

tens	ones	

tens	ones

- 2. A small plane has 20 rows of seats. Each row has 4 seats.
 - a. Find the total number of seats on the plane.



b. How many seats are on 3 small planes?

Name _____ Date _____

1. Place parentheses in the equations to find the related fact. Then, solve.

a.
$$4 \times 20 = 4 \times 2 \times 10$$

b.
$$3 \times 30 = 3 \times 3 \times 10$$

$$= 3 \times 3 \times 10$$

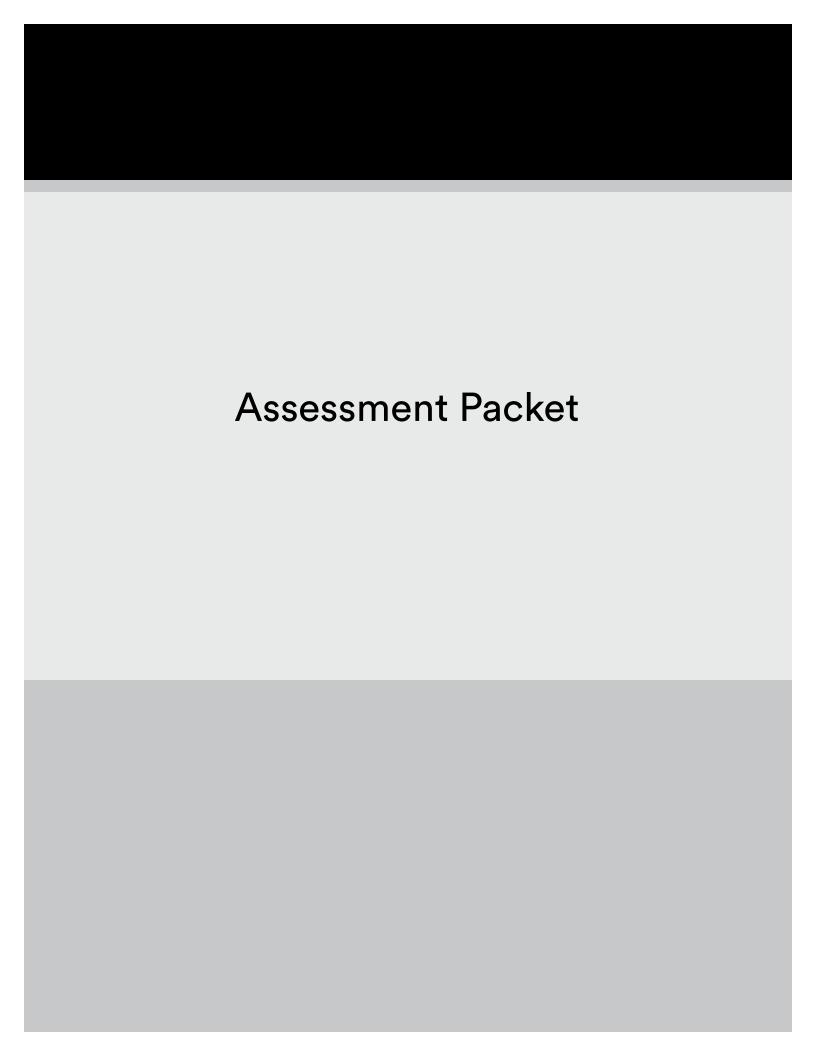
2. Jamila solves 20×5 by thinking about 10 tens. Explain her strategy.

Name	Date	
		

Use the RDW process to solve. Use a letter to represent the unknown.

Frederick buys a can of 3 tennis balls. The empty can weighs 20 grams, and each tennis ball weighs 60 grams. What is the total weight of the can with 3 tennis balls?





Name	Date

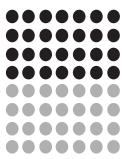
1. The carnival is in town for 21 days. How many weeks is the carnival in town? (There are 7 days in 1 week.) Write an equation, and solve.

2. There are 48 liters of water needed to finish filling the dunk tank at the carnival. Each container holds 8 liters of water. How many containers are needed to finish filling the dunk tank? Represent the problem using multiplication and division sentences and a letter for the unknown. Solve.

 ×	=	
÷	=	

3. There are 4 rows of 7 chairs setup for the Magic Show. A worker sees the large number of people lined up and doubles the number of rows of chairs. They are shown below.

Explain and label to show how the array represents both 8×7 and $2 \times (4 \times 7)$.





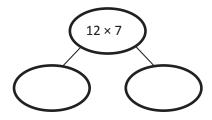
4. a. Fabrizio wins a bumblebee doll with 6 stripes. He notices that 5 other children in line for the Magic Show won the same doll. How many stripes are on 6 bumblebee dolls? Write an equation using a letter to represent the unknown. Solve.

The magician uses a magic box. Every time he puts an object in, it gets multiplied. Fabrizio writes down what happens each time and tries to find a pattern. Look at his notes to the right.

- b. Use the pattern to fill in the number of bean bags.
- c. What does the magic box do? Explain how you know.

In	Out
2 Feathers	14 Feathers
3 Marbles	21 Marbles
4 Dice	28 Dice
5 Wands	35 Wands
6 Bean bags	Bean bags

d. The magician puts 12 rings into the magic box. Fabrizio draws a number bond to find the total number of rings after they are multiplied in the magic box. Use the number bond to show how Fabrizio might have solved the problem.



e. After the show, Fabrizio and 5 friends equally share the cost of a \$54 magic set. They use the equation $6 \times n = 54 to figure out how much each person pays. How much does Fabrizio pay?



Name	Date	
_		

1. Aunt Korina and her 3 friends decide to share a cab to go to the mall. If they each spent \$6, how much did the cab ride cost altogether? Write an equation using a letter to represent the unknown. Solve.

- 2. Aunt Korina's 3 friends each order pasta and a lemonade for lunch. Aunt Korina orders only chicken salad.
 - a. Use the menu to find how much they spend altogether. Write equations using letters to represent the unknown. Solve.

Lunch Menu		
Pasta	\$7	
Chicken Salad	\$9	
Lemonade	\$2	

b. Aunt Korina mentally checks the total using $4 \times 9 . Explain her strategy.



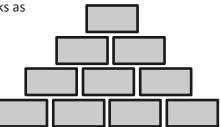
3. After lunch, the friends notice a sale. Compare the crossed out prices to the new sale prices. If all sale prices are calculated in the same way, what would the sale price be on an item that originally cost \$24? Use words and equations to explain how you know.



4. a. A shopkeeper in the bookstore arranges the boxed sets of books as shown to the right.

If each box contains 9 books, how many books are there?

- Write an equation using a letter to represent the unknown, and then solve.
- Explain how you know your answer is reasonable.



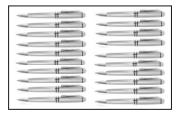


b. Aunt Korina figures out how many books are in the arrangement. Her work is shown below. Explain Aunt Korina's strategy.

$$10 \times 10 - 10 = 90$$

c. In the book store, Aunt Korina buys 3 boxes of pens. Each box contains 2 bundles of 10 gray pens. Her friend buys 6 packs of pens. Each pack contains 10 black pens. Explain how the equation below shows how Aunt Korina and her friend buy the same number of pens.

$$6 \times 10 = 3 \times 2 \times 10$$





Box of Gray Pens

Pack of Black Pens



5.	Complete as many problems as you can in 100 seconds.	The teacher will time you and tell you when to
	stop.	

 $4 \div 2 = _{-}$ $2 \times 1 = _{-}$ $= 10 \div 5$ $3 \times 3 = _{_}$ 2 x _ = 4

x 6 = 12 21 ÷ 7 = _ $= 30 \div 10$ 8 x = 24 $= 9 \times 3$

 $6 \times 4 = _{-}$ x 3 = 12 $= 16 \div 4$

 $9 \times 4 =$ = 35 40 ÷ 8 = $= 3 \times 5$ x 4 = 207 x_

= 35 $= 54 \div 9$ 24 ÷ 4 = x 6 = 36 $8 \times 6 =$

8 x $9 \times 6 =$ $= 49 \div 7$ = 56 $= 6 \times 7$ 21 ÷ 3 = _

 $7 \times 7 =$ x9 = 63 $= 64 \div 8$ = 48 $= 4 \times 8$

24 ÷ 3 = 81 ÷ 9 = _ 63 ÷ 7 = _ $8 \times 9 = _{-}$ 9 x _ = 81