## A Story of Units®

# Eureka Math<sup>™</sup> Grade 3, Module 1

Student File\_B

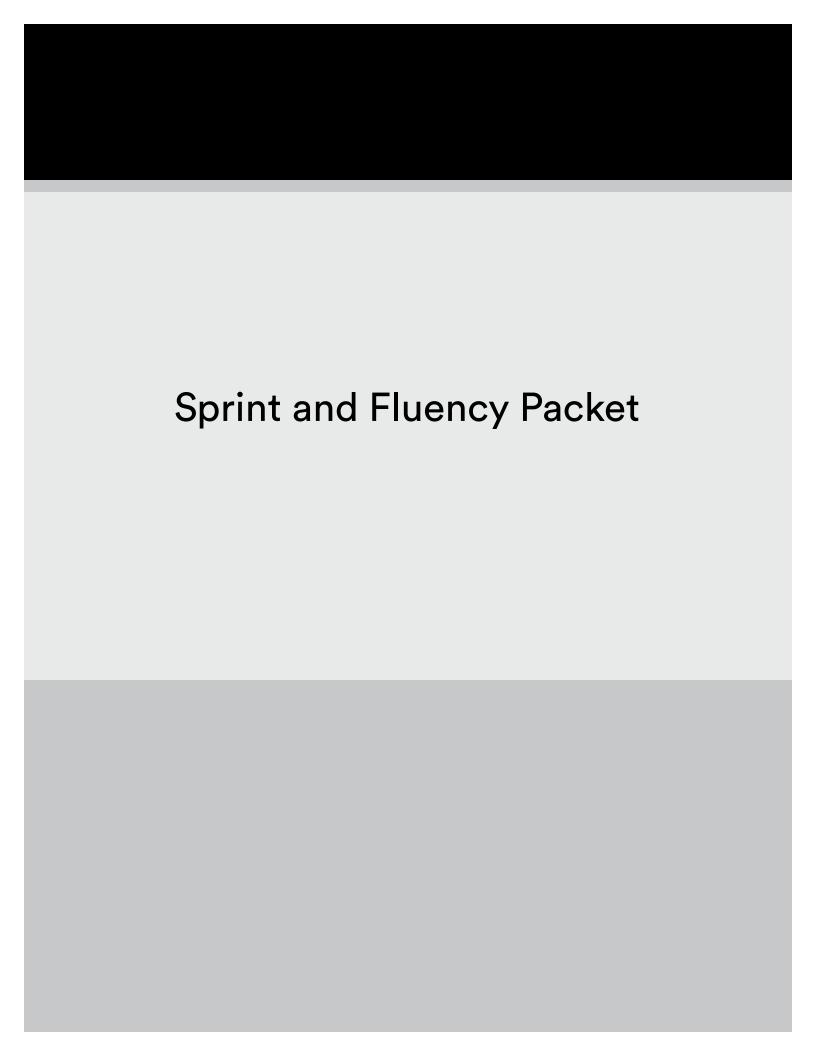
Contains Sprint and Fluency, Exit Ticket, and Assessment Materials

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10 9 8 7 6 5 4 3 2 1



#### Add or Subtract Using 2

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

23.	2 + 4 =	
24.	2 + 6 =	
25.	2 + 8 =	
26.	2 + 10 =	
27.	2 + 12 =	
28.	2 + 14 =	
29.	2 + 16 =	
30.	2 + 18 =	
31.	0 + 22 =	
32.	22 + 22 =	
33.	44 + 22 =	
34.	66 + 22 =	
35.	88 – 22 =	
36.	66 – 22 =	
37.	44 – 22 =	
38.	22 – 22 =	
39.	22 + 0 =	
40.	22 + 22 =	
41.	22 + 44 =	
42.	66 + 22 =	
43.	888 – 222 =	
44.	666 – 222 =	



Lesson 2: Relate multiplication to the array model.

Add or Subtract Using 2

Number Correct:	
Improvement:	

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

23.	4 + 2 =	
24.	6 + 2 =	
25.	8 + 2 =	
26.	10 + 2 =	
27.	12 + 2 =	
28.	14 + 2 =	
29.	16 + 2 =	
30.	18 + 2 =	
31.	0 + 22 =	
32.	22 + 22 =	
33.	22 + 44 =	
34.	66 + 22 =	
35.	88 – 22 =	
36.	66 – 22 =	
37.	44 – 22 =	
38.	22 – 22 =	
39.	22 + 0 =	
40.	22 + 22 =	
41.	22 + 44 =	
42.	66 + 22 =	
43.	666 – 222 =	
44.	888 – 222 =	



Lesson 2: Relate multiplication to the array model.

### Add Equal Groups

		1
1.	2 + 2 =	
2.	2 twos =	
3.	5 + 5 =	
4.	2 fives =	
5.	2 + 2 + 2 =	
6.	3 twos =	
7.	2 + 2 + 2 + 2 =	
8.	4 twos =	
9.	5 + 5 + 5 =	
10.	3 fives =	
11.	5 + 5 + 5 + 5 =	
12.	4 fives =	
13.	2 fours =	
14.	4 + 4 =	
15.	2 threes =	
16.	3 + 3 =	
17.	2 sixes =	
18.	6 + 6 =	
19.	5 twos =	
20.	2+2+2+2+2=	
21.	5 fives =	
22.	5 + 5 + 5 + 5 + 5 =	

23.	7 + 7 =	
24.	2 sevens =	
25.	9 + 9 =	
26.	2 nines =	
27.	8 + 8 =	
28.	2 eights =	
29.	3 + 3 + 3 =	
30.	3 threes =	
31.	4 + 4 + 4 =	
32.	3 fours =	
33.	3 + 3 + 3 + 3 =	
34.	4 threes =	
35.	4 fives =	
36.	5 + 5 + 5 + 5 =	
37.	3 sixes =	
38.	6 + 6 + 6 =	
39.	3 eights =	
40.	8 + 8 + 8 =	
41.	3 sevens =	
42.	7 + 7 + 7 =	
43.	3 nines =	
44.	9 + 9 + 9 =	



Lesson 3: Interpret the meaning of factors—the size of the group or the number  $% \left( x\right) =\left( x\right) +\left( x\right) =\left( x\right)$ of groups.

#### Add Equal Groups

1.	5 + 5 =	
2.	2 fives =	
3.	2 + 2 =	
4.	2 twos =	
5.	5 + 5 + 5 =	
6.	3 fives =	
7.	5 + 5 + 5 + 5 =	
8.	4 fives =	
9.	2 + 2 + 2 =	
10.	3 twos =	
11.	2 + 2 + 2 + 2 =	
12.	4 twos =	
13.	2 threes =	
14.	3 + 3 =	
15.	2 sixes =	
16.	6 + 6 =	
17.	2 fours =	
18.	4 + 4 =	
19.	5 fives =	
20.	5+5+5+5+5=	
21.	5 twos =	
22.	2+2+2+2+2=	

Number Correct:	
Improvement:	

23.	8 + 8 =	
24.	2 eights =	
25.	7 + 7 =	
26.	2 sevens =	
27.	9 + 9 =	
28.	2 nines =	
29.	3+3+3+3=	
30.	4 threes =	
31.	4 + 4 + 4 =	
32.	3 fours =	
33.	3 + 3 + 3 =	
34.	3 threes =	
35.	4 fives =	
36.	5 + 5 + 5 + 5 =	
37.	3 sevens =	
38.	7 + 7 + 7 =	
39.	3 nines =	
40.	9 + 9 + 9 =	
41.	3 sixes =	
42.	6 + 6 + 6 =	
43.	3 eights =	
44.	8 + 8 + 8 =	



Interpret the meaning of factors—the size of the group or the number of groups. Lesson 3:

#### Repeated Addition as Multiplication

5 + 5 + 5 =
3 × 5 =
5 × 3 =
2 + 2 + 2 =
3 × 2 =
2 × 3 =
5 + 5 =
2 × 5 =
5 × 2 =
2 + 2 + 2 + 2 =
4 × 2 =
2 × 4 =
2 + 2 + 2 + 2 + 2 =
5 × 2 =
2 × 5 =
3 + 3 =
2 × 3 =
3 × 2 =
5 + 5 + 5 + 5 =
4 × 5 =
5 × 4 =
2 × 2 =

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



Lesson 4:

Understand the meaning of the unknown as the size of the group in division.

Number Correct: \_\_\_\_\_ Improvement: \_\_\_\_\_

#### Repeated Addition as Multiplication

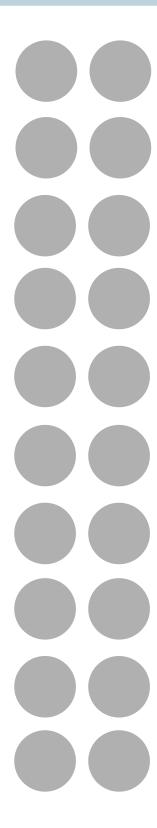
1.	2 + 2 + 2 =	
2.	3 × 2 =	
3.	2 × 3 =	
4.	5 + 5 + 5 =	
5.	3 × 5 =	
6.	5 × 3 =	
7.	2 + 2 + 2 + 2 =	
8.	4 × 2 =	
9.	2 × 4 =	
10.	5 + 5 =	
11.	2 × 5 =	
12.	5 × 2 =	
13.	3 + 3 =	
14.	2 × 3 =	
15.	3 × 2 =	
16.	2+2+2+2+2=	
17.	5 × 2 =	
18.	2 × 5 =	
19.	5 + 5 + 5 + 5 =	
20.	4 × 5 =	
21.	5 × 4 =	
22.	2 × 2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

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



Lesson 4:

Understand the meaning of the unknown as the size of the group in division.



twos array



Demonstrate the commutativity of multiplication, and practice related facts by skip-counting objects in array models. Lesson 7:

multiply by 2 (1-5)



Lesson 9:

Find related multiplication facts by adding and subtracting equal groups in array models.

multiply by 2 (6-10)



Lesson 10: Model the

Model the distributive property with arrays to decompose units as a strategy to multiply.

multiply by 3 (1-5)



**Lesson 11:** Model division as the unknown factor in multiplication using arrays and tape diagrams.

multiply by 3 (6-10)



**Lesson 12:** Interpret the quotient as the number of groups or the number of objects in each group using units of 2.

#### Multiply or Divide by 2

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

23.			
25 × 2 = 6 26.	23.	×2 = 20	
26.	24.	× 2 = 4	
27. $10 \div 2 =$ 28. $2 \div 1 =$ 29. $4 \div 2 =$ 30. $6 \div 2 =$ 31. $- \times 2 = 12$ 32. $- \times 2 = 14$ 33. $- \times 2 = 18$ 34. $- \times 2 = 16$ 35. $14 \div 2 =$ 36. $18 \div 2 =$ 37. $12 \div 2 =$ 38. $16 \div 2 =$ 39. $11 \times 2 =$ 40. $22 \div 2 =$ 41. $12 \times 2 =$ 42. $24 \div 2 =$ 43. $14 \times 2 =$	25.	×2=6	
28. $2 \div 1 =$ 29. $4 \div 2 =$ 30. $6 \div 2 =$ 31. $- \times 2 = 12$ 32. $- \times 2 = 14$ 33. $- \times 2 = 18$ 34. $- \times 2 = 16$ 35. $14 \div 2 =$ 36. $18 \div 2 =$ 37. $12 \div 2 =$ 38. $16 \div 2 =$ 39. $11 \times 2 =$ 40. $22 \div 2 =$ 41. $12 \times 2 =$ 42. $24 \div 2 =$ 43. $14 \times 2 =$	26.	20 ÷ 2 =	
29.	27.	10 ÷ 2 =	
30. $6 \div 2 =$ 31. $- \times 2 = 12$ 32. $- \times 2 = 14$ 33. $- \times 2 = 18$ 34. $- \times 2 = 16$ 35. $- \times 2 = 16$ 36. $- \times 2 =$ 37. $- \times 2 =$ 38. $- \times 2 =$ 39. $- \times 2 =$ 40. $- \times 2 =$ 40. $- \times 2 =$ 41. $- \times 2 =$ 42. $- \times 2 =$ 43. $- \times 2 =$ 44. $- \times 2 =$	28.	2 ÷ 1 =	
31 × 2 = 12  32 × 2 = 14  33 × 2 = 18  34 × 2 = 16  35.	29.	4 ÷ 2 =	
32 × 2 = 14  33 × 2 = 18  34 × 2 = 16  35.	30.	6 ÷ 2 =	
33 × 2 = 18  34 × 2 = 16  35.	31.	×2 = 12	
34 × 2 = 16  35.	32.	× 2 = 14	
35.	33.	×2 = 18	
36.	34.	×2 = 16	
37.	35.	14 ÷ 2 =	
38.	36.	18 ÷ 2 =	
39.	37.	12 ÷ 2 =	
40.	38.	16 ÷ 2 =	
41.	39.	11 × 2 =	
42. 24 ÷ 2 = 43. 14 × 2 =	40.	22 ÷ 2 =	
43. 14 × 2 =	41.	12 × 2 =	
	42.	24 ÷ 2 =	
44. 28 ÷ 2 =	43.	14 × 2 =	
	44.	28 ÷ 2 =	



Interpret the quotient as the number of groups or the number of Lesson 13: objects in each group using units of 3.

B

Multiply or Divide by 2

Number Correct:	
Improvement:	

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

23.	× 2 = 4	
24.	× 2 = 20	
25.	×2=6	
26.	4 ÷ 2 =	
27.	2 ÷ 1 =	
28.	20 ÷ 2 =	
29.	10 ÷ 2 =	
30.	6 ÷ 2 =	
31.	× 2 = 12	
32.	× 2 = 16	
33.	× 2 = 18	
34.	× 2 = 14	
35.	16 ÷ 2 =	
36.	18 ÷ 2 =	
37.	12 ÷ 2 =	
38.	14 ÷ 2 =	
39.	11 × 2 =	
40.	22 ÷ 2 =	
41.	12 × 2 =	
42.	24 ÷ 2 =	
43.	13 × 2 =	
44.	26 ÷ 2 =	



Interpret the quotient as the number of groups or the number of Lesson 13: objects in each group using units of 3.



#### Multiply or Divide by 3

1.	2 × 3 =	
2.	3 × 3 =	
3.	4 × 3 =	
4.	5 × 3 =	
5.	1 × 3 =	
6.	6 ÷ 3 =	
7.	9 ÷ 3 =	
8.	15 ÷ 3 =	
9.	3 ÷ 1 =	
10.	12 ÷ 3 =	
11.	6 × 3 =	
12.	7 × 3 =	
13.	8 × 3 =	
14.	9 × 3 =	
15.	10 × 3 =	
16.	24 ÷ 3 =	
17.	21 ÷ 3 =	
18.	27 ÷ 3 =	
19.	18 ÷ 3 =	
20.	30 ÷ 3 =	
21.	× 3 = 15	
22.	×3=12	
		<u></u>

23.	×3=30	
24.	×3=6	
25.	×3=9	
26.	30 ÷ 3 =	
27.	15 ÷ 3 =	
28.	3 ÷ 1 =	
29.	6 ÷ 3 =	
30.	9 ÷ 3 =	
31.	×3=18	
32.	×3=21	
33.	×3=27	
34.	×3=24	
35.	21 ÷ 3 =	
36.	27 ÷ 3 =	
37.	18 ÷ 3 =	
38.	24 ÷ 3 =	
39.	11 × 3 =	
40.	33 ÷ 3 =	
41.	12 × 3 =	
42.	36 ÷ 3 =	
43.	13 × 3 =	
44.	39 ÷ 3 =	



Skip-count objects in models to build fluency with multiplication facts using units of 4. Lesson 14:

B

Mult	iply or	Divide	by 3

1.	1 × 3 =	
2.	2 × 3 =	
3.	3 × 3 =	
4.	4 × 3 =	
5.	5 × 3 =	
6.	9 ÷ 3 =	
7.	6 ÷ 3 =	
8.	12 ÷ 3 =	
9.	3 ÷ 1 =	
10.	15 ÷ 3 =	
11.	10 × 3 =	
12.	6 × 3 =	
13.	7 × 3 =	
14.	8 × 3 =	
15.	9 × 3 =	
16.	21÷ 3 =	
17.	18 ÷ 3 =	
18.	24 ÷ 3 =	
19.	30 ÷ 3 =	
20.	27 ÷ 3 =	
21.	×3=12	
22.	×3=15	

23.	×3=6	
24.	×3=30	
25.	×3=9	
26.	6 ÷ 3 =	
27.	3 ÷ 1 =	
28.	30 ÷ 3 =	
29.	15 ÷ 3 =	
30.	9 ÷ 3 =	
31.	×3=18	
32.	×3=24	
33.	×3=27	
34.	×3=21	
35.	24 ÷ 3 =	
36.	27 ÷ 3 =	
37.	18 ÷ 3 =	
38.	21 ÷ 3 =	
39.	11 × 3 =	
40.	33 ÷ 3 =	
41.	12 × 3 =	
42.	36 ÷ 3 =	
43.	13 × 3 =	
44.	39 ÷ 3 =	

multiply by 4 (1-5)



Lesson 15: Relate arrays to tape diagrams to model the commutative property of multiplication.

multiply by 4 (6-10)



**Lesson 16:** Use the distributive property as a strategy to find related multiplication facts.

#### Multiply or Divide by 4

1.	2 × 4 =	
2.	3 × 4 =	
3.	4 × 4 =	
4.	5 × 4 =	
5.	1 × 4 =	
6.	8 ÷ 4 =	
7.	12 ÷ 4 =	
8.	20 ÷ 4 =	
9.	4 ÷ 1 =	
10.	16 ÷ 4 =	
11.	6 × 4 =	
12.	7 × 4 =	
13.	8 × 4 =	
14.	9 × 4 =	
15.	10 × 4 =	
16.	32 ÷ 4 =	
17.	28 ÷ 4 =	
18.	36 ÷ 4 =	
19.	24 ÷ 4 =	
20.	40 ÷ 4 =	
21.	×4 = 20	
22.	×4 = 24	

23.	× 4 = 40	
24.	×4=8	
25.	× 4 = 12	
26.	40 ÷ 4 =	
27.	20 ÷ 4 =	
28.	4 ÷ 1 =	
29.	8 ÷ 4 =	
30.	12 ÷ 4 =	
31.	×4 = 16	
32.	×4=28	
33.	×4=36	
34.	×4=32	
35.	28 ÷ 4 =	
36.	36 ÷ 4 =	
37.	24 ÷ 4 =	
38.	32 ÷ 4 =	
39.	11 × 4 =	
40.	44 ÷ 4 =	
41.	12 ÷ 4 =	
42.	48 ÷ 4 =	
43.	14 × 4 =	
44.	56 ÷ 4 =	



Lesson 17: Model the relationship between multiplication and division.

Multiply or Divide by 4

Number Correct:	
Improvement:	

1.	1 × 4 =	
2.	2 × 4 =	
3.	3 × 4 =	
4.	4 × 4 =	
5.	5 × 4 =	
6.	12 ÷ 4 =	
7.	8 ÷ 4 =	
8.	16 ÷ 4 =	
9.	4 ÷ 1 =	
10.	20 ÷ 4 =	
11.	10 × 4 =	
12.	6 × 4 =	
13.	7 × 4 =	
14.	8 × 4 =	
15.	9 × 4 =	
16.	28 ÷ 4 =	
17.	24 ÷ 4 =	
18.	32 ÷ 4 =	
19.	40 ÷ 4 =	
20.	36 ÷ 4 =	
21.	× 4 = 16	
22.	× 4 = 20	

23.	×4=8	
24.	× 4 = 40	
25.	× 4 = 12	
26.	8 ÷ 4 =	
27.	4 ÷ 1 =	
28.	40 ÷ 4 =	
29.	20 ÷ 4 =	
30.	12 ÷ 4 =	
31.	× 4 = 12	
32.	×4=24	
33.	×4=36	
34.	× 4 = 28	
35.	32 ÷ 4 =	
36.	36 ÷ 4 =	
37.	24 ÷ 4 =	
38.	28 ÷ 4 =	
39.	11 × 4 =	
40.	44 ÷ 4 =	
41.	12 × 4 =	
42.	48 ÷ 4 =	
43.	13 × 4 =	
44.	52 ÷ 4 =	



Lesson 17: Model the relationship between multiplication and division.

#### Add or Subtract Using 5

1.	0 + 5 =	
2.	5 + 5 =	
3.	10 + 5 =	
4.	15 + 5 =	
5.	20 + 5 =	
6.	25 + 5 =	
7.	30 + 5 =	
8.	35 + 5 =	
9.	40 + 5 =	
10.	45 + 5 =	
11.	50 – 5 =	
12.	45 – 5 =	
13.	40 – 5 =	
14.	35 – 5 =	
15.	30 – 5 =	
16.	25 – 5 =	
17.	20 – 5 =	
18.	15 – 5 =	
19.	10 – 5 =	
20.	5 – 5 =	
21.	5 + 0 =	
22.	5 + 5 =	

23.	10 + 5 =	
24.	15 + 5 =	
25.	20 + 5 =	
26.	25 + 5 =	
27.	30 + 5 =	
28.	35 + 5 =	
29.	40 + 5 =	
30.	45 + 5 =	
31.	0 + 50 =	
32.	50 + 50 =	
33.	50 + 5 =	
34.	55 + 5 =	
35.	60 – 5 =	
36.	55 – 5 =	
37.	60 + 5 =	
38.	65 + 5 =	
39.	70 – 5 =	
40.	65 – 5 =	
41.	100 + 50 =	
42.	150 + 50 =	
43.	200 – 50 =	
44.	150 – 50 =	



Lesson 18: Apply the distributive property to decompose units.

Add or Subtract Using 5

Number Correct:	
Improvement:	

1.	5 + 0 =	
2.	5 + 5 =	
3.	5 + 10 =	
4.	5 + 15 =	
5.	5 + 20 =	
6.	5 + 25 =	
7.	5 + 30 =	
8.	5 + 35 =	
9.	5 + 40 =	
10.	5 + 45 =	
11.	50 – 5 =	
12.	45 – 5 =	
13.	40 – 5 =	
14.	35 – 5 =	
15.	30 – 5 =	
16.	25 – 5 =	
17.	20 – 5 =	
18.	15 – 5 =	
19.	10 – 5 =	
20.	5 – 5 =	
21.	0 + 5 =	
22.	5 + 5 =	

23.	10 + 5 =	
24.	15 + 5 =	
25.	20 + 5 =	
26.	25 + 5 =	
27.	30 + 5 =	
28.	35 + 5 =	
29.	40 + 5 =	
30.	45 + 5 =	
31.	50 + 0 =	
32.	50 + 50 =	
33.	5 + 50 =	
34.	5 + 55 =	
35.	60 – 5 =	
36.	55 – 5 =	
37.	5 + 60 =	
38.	5 + 65 =	
39.	70 – 5 =	
40.	65 – 5 =	
41.	50 + 100 =	
42.	50 + 150 =	
43.	200 – 50 =	
44.	150 – 50 =	



Lesson 18: Apply the distributive property to decompose units.

	A	
	Δ	N
- /	_	•

#### Skip-Count by 5

•	·	
1.	0, 5,	
2.	5, 10,	
3.	10, 15,	
4.	15, 20,	
5.	20, 25,	
6.	25, 30,	
7.	30, 35,	
8.	35, 40,	
9.	40, 45,	
10.	50, 45,	
11.	45, 40,	
12.	40, 35,	
13.	35, 30,	
14.	30, 25,	
15.	25, 20,	
16.	20, 15,	
17.	15, 10,	
18.	0,, 10	
19.	25,, 35	
20.	5,, 15	
21.	30,, 40	
22.	10,, 20	

Number	Correct:	

23.	35,, 45	
24.	15,, 25	
25.	40,, 50	
26.	25,, 15	
27.	50,, 40	
28.	20,, 10	
29.	45,, 35	
30.	15,, 5	
31.	40,, 30	
32.	10,, 0	
33.	35,, 25	
34.	, 10, 5	
35.	, 35, 30	
36.	, 15, 10	
37.	, 40, 35	
38.	, 20, 15	
39.	, 45, 40	
40.	50, 55,	
41.	45, 50,	
42.	65,, 55	
43.	55, 60,	
44.	60, 65,	



Lesson 20: Solve two-step word problems involving multiplication and division,

and assess the reasonableness of answers.

Skip-Count by 5

Number Correct: \_\_\_\_\_ Improvement: \_\_\_\_\_

1.	5, 10,
2.	10, 15,
3.	15, 20,
4.	20, 25,
5.	25, 30,
6.	30, 35,
7.	35, 40,
8.	40, 45,
9.	50, 45,
10.	45, 40,
11.	40, 35,
12.	35, 30,
13.	30, 25,
14.	25, 20,
15.	20, 15,
16.	15, 10,
17.	0,, 10
18.	25,, 35
19.	5,, 15
20.	30,, 40
21.	10,, 20
22.	35,, 45

23.	15,, 25	
24.	35,, 45	
25.	20,, 30	
26.	25,, 15	
27.	50,, 60	
28.	20,, 10	
29.	45,, 35	
30.	15,, 5	
31.	35,, 25	
32.	10,, 0	
33.	35,, 25	
34.	, 15, 10	
35.	, 40, 35	
36.	, 20, 15	
37.	, 45, 40	
38.	, 10, 5	
39.	, 35, 30	
40.	45, 50,	
41.	50, 55,	
42.	55, 60,	
43.	65,, 55	
44.	, 60, 55	



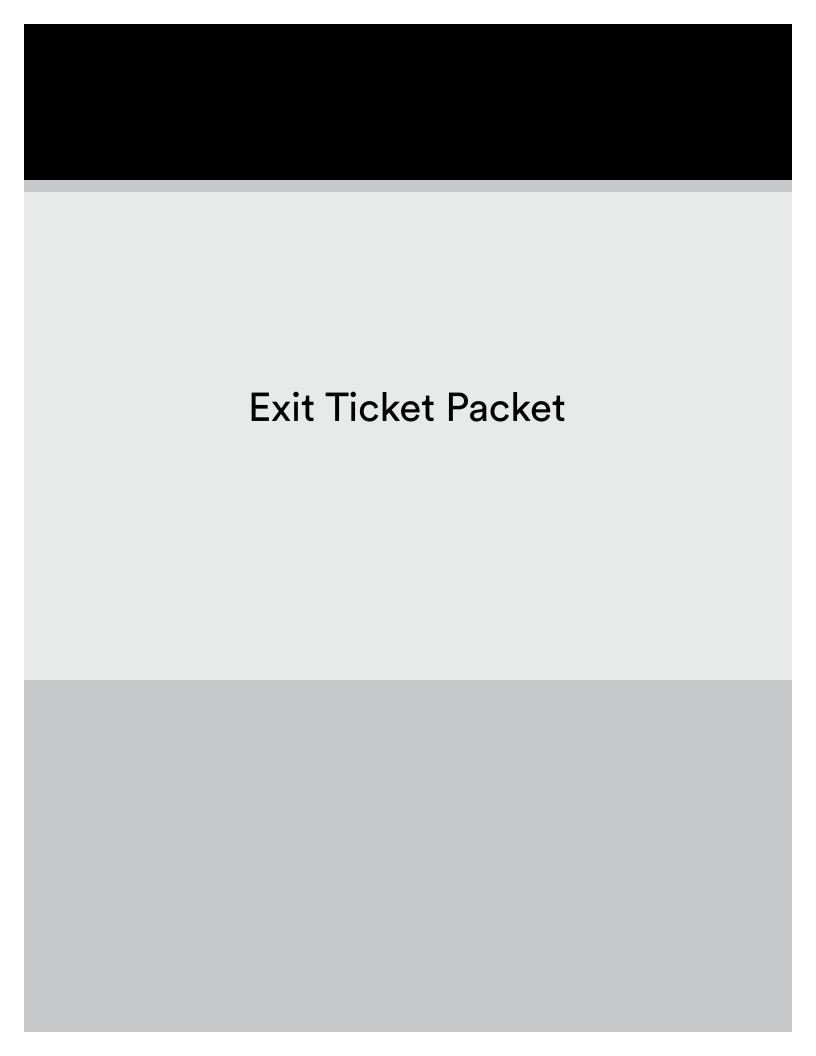
Lesson 20:

Solve two-step word problems involving multiplication and division, and assess the reasonableness of answers.

multiply by 5 (1-5)



Lesson 21:



Name \_\_\_\_\_

Date \_\_\_\_\_

1. The picture below shows 4 groups of 2 slices of watermelon. Fill in the blanks to make true repeated addition and multiplication sentences that represent the picture.









2. Draw a picture to show 3 + 3 + 3 = 9. Then, write a multiplication sentence to represent the picture.



Name	<u>,                                      </u>	Date

1.



- a. There are 4 rows of stars. How many stars are in each row?
- b. Write a multiplication equation to describe the array.
- 2. Judy collects seashells. She arranges them in 3 rows of 6. Draw Judy's array to show how many seashells she has altogether. Then, write a multiplication equation to describe the array.



amount in one row.

Name	Date
Draw an array that shows 5 rows of 3 squares.	Then, show a number bond where each part represents the

Name \_\_\_\_\_

Date \_\_\_\_\_

1. There are 16 glue sticks for the class. The teacher divides them into 4 equal groups. Draw the number of glue sticks in each group.









There are \_\_\_\_\_ glue sticks in each group.

16 ÷ \_\_\_\_\_ = \_\_\_\_

2. Draw a picture to show  $15 \div 3$ . Then, fill in the blank to make a true division sentence.

15 ÷ 3 = \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_

1. Divide 12 triangles into groups of 6.



12 ÷ 6 = \_\_\_\_\_

2. Spencer buys 20 strawberries to make smoothies. Each smoothie needs 5 strawberries. Use a count-by to find the number of smoothies Spencer can make. Make a drawing to match your counting.



Name	Date	
Cesar arranges 12 notecards into rows of 6 for his presentati	to rows of 6 for his presentation. Draw an array to represent the problem.	
	12 ÷ 6 =	
	×6=	= 12
What do the unknown factor and quotient represent?		



Name		Date
	2 × 5 = 5 × 2	

Do you agree or disagree with the statement in the box? Draw arrays and use skip-counting to explain your thinking.



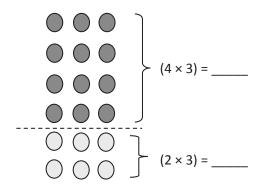
Name	Date
Mary B	eth organizes stickers on a page in her sticker book. She arranges them in 3 rows and 4 columns.
a.	Draw an array to show Mary Beth's stickers.
b.	Use your array to write a multiplication sentence to find Mary Beth's total number of stickers.
c.	Label your array to show how you skip-count to solve your multiplication sentence.
d.	Use what you know about the commutative property to write a different multiplication sentence for your array.



Name	Date
$\bigcirc$	1. Mrs. Stern roasts cloves of garlic. She places 10 rows of two cloves on a baking sheet.
$\bigcirc$	Write an equation to describe the number of cloves Mrs. Stern bakes.
$\bigcirc$	×=
$\bigcirc$	2. When the garlic is roasted, Mrs. Stern uses some for a recipe. There are 2 rows of two
$\bigcirc$	garlic cloves left on the pan.
$\bigcirc$	a. Complete the equation below to show how many garlic cloves Mrs. Stern uses.
$\bigcirc$	twostwos =twos
$\bigcirc$	b. 20 – = 16
$\bigcirc$	
$\bigcirc$	c. Write an equation to describe the number of garlic cloves Mrs. Stern uses.
	×2=

Name \_\_\_\_\_

Date \_\_\_\_\_



$$(4 \times 3) + (2 \times 3) = \underline{\hspace{1cm}} + \underline{\hspace{1cm}}$$

$$(5 \times 3) + (2 \times 3) =$$
\_\_\_\_\_\_+

Name	Date	
_		

Ms. McCarty has 18 stickers. She puts 2 stickers on each homework paper and has no more left. How many homework papers does she have? Model the problem with both an array and a labeled tape diagram.



Name	Date	
There are 14 mints in 1 box. Cecilia eats 2 mints each day. mints? Draw and label a tape diagram to solve.	How many days does it ta	ke Cecilia to eat 1 box of
	It takes Cecilia	_ days to eat 1 box of mints.



Date

Name

1.	Andrea has 21 apple slices. She uses 3 apple slices to decorate 1 pie. How many pies does Andrea make? Draw and label a tape diagram to solve.

2. There are 24 soccer players on the field. They form 3 equal teams. How many players are on each team?



Name	Date
	·

Arthur has 4 boxes of chocolates. Each box has 6 chocolates inside. How many chocolates does Arthur have altogether? Draw and label a tape diagram to solve.



statement is true.

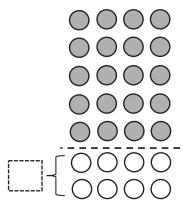
Name	Date
Draw and label 2 tape diagrams to show that $4 \times 3 = 3 \times 4$ .	Use your diagrams to explain how you know the

EUREKA MATH

Lesson 15: Relate arrays to tape diagrams to model the commutative property of multiplication.

Name	Date

Destiny says, "I can use  $5 \times 4$  to find the answer to  $7 \times 4$ ." Use the array below to explain Destiny's strategy using words and numbers.



Name	Date

1. Mr. Thomas organizes 16 binders into stacks of 4. How many stacks does he make? Draw and label a number bond to solve.

2. The chef uses 28 avocados to make 4 batches of guacamole. How many avocados are in 2 batches of guacamole? Draw and label a tape diagram to solve.



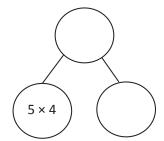
Name	Date

Dylan used the break apart and distribute strategy to solve a multiplication problem. Look at his work below, write the multiplication problem Dylan solved, and complete the number bond.

Dylan's work:

$$(5 \times 4) + (1 \times 4) =$$

$$20 + 4 = 24$$

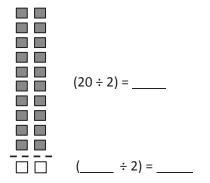




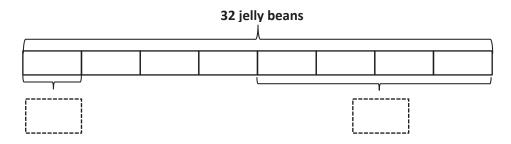


Name \_\_\_\_\_ Date \_\_\_\_\_

Complete the equations below to solve  $22 \div 2 = \underline{\hspace{1cm}}$ .



1. Thirty-two jelly beans are shared by 8 students.



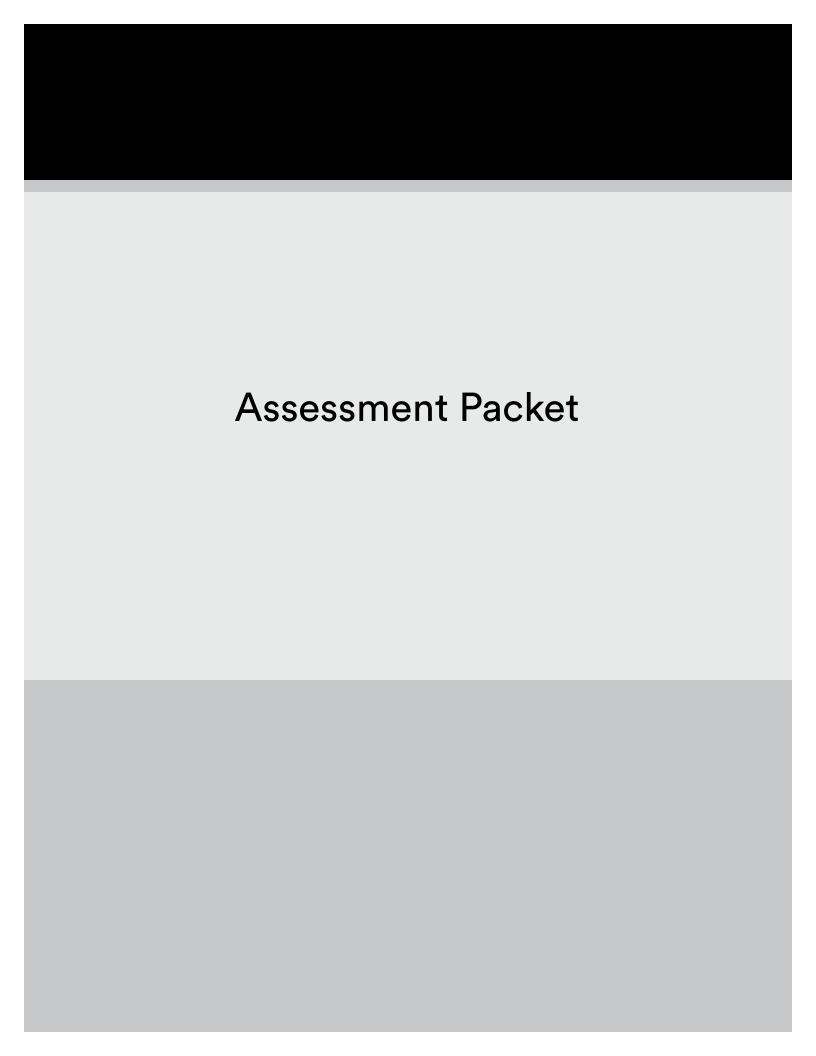
- a. How many jelly beans will each student get?
- b. How many jelly beans will 4 students get?
- 2. The teacher has 30 apple slices and 20 pear slices. Five children equally share all of the fruit slices. How many fruit slices does each child get?



Name	Date	
_	<del></del>	

Ms. Egeregor buys 27 books for her classroom library. She buys an equal number of fiction, nonfiction, and poetry books. She shelves all of the poetry books first. Draw and label a tape diagram to show how many books Ms. Egeregor has left to shelve.





Name	Date	

- 1. Mrs. Tran plants 2 rows of 5 carrots in her garden.
  - a. Draw an array that represents Mrs. Tran's carrots. Use an X to show each carrot.

- b. Mrs. Tran adds 3 more rows of 5 carrots to her garden.
  - Use circles to show her new carrots on the array in Part (a).
  - Fill in the blanks below to show how she added the five rows.

\_\_\_\_\_ fives + \_\_\_\_\_ fives = \_\_\_\_ fives

Write a sentence to explain your thinking.

- c. Find the total number of carrots Mrs. Tran planted.
- d. Write a multiplication sentence to describe the array representing the total number of carrots Mrs. Tran planted.



Module 1:

Properties of Multiplication and Division and Solving Problems with Units of 2-5 and 10

- 2. Mrs. Tran picks 15 tomatoes from her garden. She puts 5 tomatoes in each bag.
  - a. Draw Mrs. Tran's bags of tomatoes.

b. Write a multiplication sentence that describes your drawing in Part (a).

- 3. Mrs. Tran plants 12 sunflowers in her garden. She plants them in 3 rows.
  - a. Fill in the blanks below to make a true division sentence. What does the answer represent?

\_\_÷ \_\_\_\_= \_\_\_\_

b. Mrs. Tran adds 2 more identical rows of sunflowers to her 3 original rows. Draw an array to show how many flowers she has now.

c. Mrs. Tran figured out how many flowers she planted. Her work is shown in the box below. Would Mrs. Tran get the same result if she multiplied  $5 \times 4$ ? Explain why or why not.

$$(3 \times 4) + (2 \times 4) = 12 + 8$$
  
= 20



Module 1:

Name	Date	

1. Mr. Lewis arranges all the desks in his classroom into 6 equal groups of 4. How many desks are in his classroom? Show a picture and multiplication sentence in your work.

a. What does the product in your multiplication sentence represent?

b. Fill in the blanks below to complete a related division sentence.

\_\_\_\_\_ ÷ 4 = \_\_\_\_

c. What does the quotient in Part (b) represent?



Module 1:

Properties of Multiplication and Division and Solving Problems with Units 2–5 and 10

2.	a.	Draw an array that shows 9 rows of 2. Write a multiplication sentence to represent the array, and	
		circle the factor that represents the number of rows.	

b. Draw another array that shows 2 rows of 9. Write a different multiplication sentence, and circle the factor that represents the size of the row.

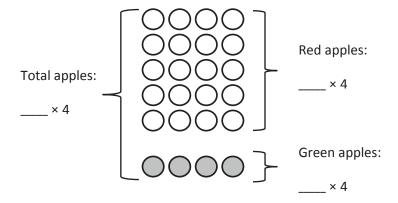
c. Explain the relationship between the two arrays using number sentences and words.



Module 1:

Properties of Multiplication and Division and Solving Problems with Units 2–5 and 10

- 3. Ms. Park buys a tray of apples for a class party. There are 5 rows of 4 red apples. There is 1 row of 4 green apples.
  - a. The picture below shows Ms. Park's apples. Fill in the blanks to complete the expressions.



b. Fill in the unknowns in the equation below to match the picture of the apples in Part (a). Use the break apart and distribute strategy to find the total number of apples Ms. Park bought.

Ms. Park bought \_\_\_\_\_ apples.

c. Lilly brings 8 green apples for the class party. Show Lilly's green apples on the picture in Part (a). Then, fill in the unknowns in the equation below to match the new picture. Solve to find the total number of apples.

There are \_\_\_\_\_ apples in all.



Module 1:

4.	Mr. Myer's class plays a game.	The class earns 5 points each time they answer a question correctly.	The
	class earns 50 points playing the game on Monday.		

a.	How many questions did the class answer correctly?	Show a picture and division sentence in your
	work.	

b. Mr. Myer uses the equation  $5 \times \underline{\phantom{a}} = 50$  to find how many questions the class answered correctly. Is his method correct? Why or why not?

c. The class answered 7 questions correctly on Tuesday. What is the total number of points the class earned on both days?



Module 1:

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

$$32 \div 4 = 10 \text{ x} = 80 \quad 27 \div 3 = 2 \text{ x} 9 = 5 \text{ x} = 45$$

Module 1:

Properties of Multiplication and Division and Solving Problems with Units 2–5 and 10