

A

Correct _____

Multiply.

1	$2 \times 1 =$	2	23	$2 \times 7 =$	14
2	$2 \times 2 =$	4	24	$5 \times 5 =$	25
3	$2 \times 3 =$	6	25	$5 \times 6 =$	30
4	$4 \times 1 =$	4	26	$5 \times 7 =$	35
5	$4 \times 2 =$	8	27	$4 \times 5 =$	20
6	$4 \times 3 =$	12	28	$4 \times 6 =$	24
7	$1 \times 6 =$	6	29	$4 \times 7 =$	28
8	$2 \times 6 =$	12	30	$3 \times 5 =$	15
9	$1 \times 8 =$	8	31	$3 \times 6 =$	18
10	$2 \times 8 =$	16	32	$3 \times 7 =$	21
11	$3 \times 1 =$	3	33	$2 \times 7 =$	14
12	$3 \times 2 =$	6	34	$2 \times 8 =$	16
13	$3 \times 3 =$	9	35	$2 \times 9 =$	18
14	$5 \times 1 =$	5	36	$5 \times 7 =$	35
15	$5 \times 2 =$	10	37	$5 \times 8 =$	40
16	$5 \times 3 =$	15	38	$5 \times 9 =$	45
17	$1 \times 7 =$	7	39	$4 \times 7 =$	28
18	$2 \times 7 =$	14	40	$4 \times 8 =$	32
19	$1 \times 9 =$	9	41	$4 \times 9 =$	36
20	$2 \times 9 =$	18	42	$3 \times 7 =$	21
21	$2 \times 5 =$	10	43	$3 \times 8 =$	24
22	$2 \times 6 =$	12	44	$3 \times 9 =$	27

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B

Improvement _____

Correct _____

Multiply.

1	$5 \times 1 =$	5	23	$5 \times 7 =$	35
2	$5 \times 2 =$	10	24	$2 \times 5 =$	10
3	$5 \times 3 =$	15	25	$2 \times 6 =$	12
4	$3 \times 1 =$	3	26	$2 \times 7 =$	14
5	$3 \times 2 =$	6	27	$3 \times 5 =$	15
6	$3 \times 3 =$	9	28	$3 \times 6 =$	18
7	$1 \times 7 =$	7	29	$3 \times 7 =$	21
8	$2 \times 7 =$	14	30	$4 \times 5 =$	20
9	$1 \times 9 =$	9	31	$4 \times 6 =$	24
10	$2 \times 9 =$	18	32	$4 \times 7 =$	28
11	$2 \times 1 =$	2	33	$5 \times 7 =$	35
12	$2 \times 2 =$	4	34	$5 \times 8 =$	40
13	$2 \times 3 =$	6	35	$5 \times 9 =$	45
14	$4 \times 1 =$	4	36	$2 \times 7 =$	14
15	$4 \times 2 =$	8	37	$2 \times 8 =$	16
16	$4 \times 3 =$	12	38	$2 \times 9 =$	18
17	$1 \times 6 =$	6	39	$3 \times 7 =$	21
18	$2 \times 6 =$	12	40	$3 \times 8 =$	24
19	$1 \times 8 =$	8	41	$3 \times 9 =$	27
20	$2 \times 8 =$	16	42	$4 \times 7 =$	28
21	$5 \times 5 =$	25	43	$4 \times 8 =$	32
22	$5 \times 6 =$	30	44	$4 \times 9 =$	36

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A

Correct _____

Multiply.

1	$2 \times 2 =$	4	23	$5 \times 6 =$	30
2	$2 \times 3 =$	6	24	$6 \times 5 =$	30
3	$3 \times 2 =$	6	25	$5 \times 7 =$	35
4	$2 \times 4 =$	8	26	$7 \times 5 =$	35
5	$4 \times 2 =$	8	27	$5 \times 8 =$	40
6	$2 \times 5 =$	10	28	$8 \times 5 =$	40
7	$5 \times 2 =$	10	29	$5 \times 9 =$	45
8	$2 \times 6 =$	12	30	$9 \times 5 =$	45
9	$6 \times 2 =$	12	31	$5 \times 10 =$	50
10	$2 \times 7 =$	14	32	$10 \times 5 =$	50
11	$7 \times 2 =$	14	33	$3 \times 3 =$	9
12	$2 \times 8 =$	16	34	$3 \times 4 =$	12
13	$8 \times 2 =$	16	35	$4 \times 3 =$	12
14	$2 \times 9 =$	18	36	$3 \times 6 =$	18
15	$9 \times 2 =$	18	37	$6 \times 3 =$	18
16	$2 \times 10 =$	20	38	$3 \times 7 =$	21
17	$10 \times 2 =$	20	39	$7 \times 3 =$	21
18	$5 \times 3 =$	15	40	$3 \times 8 =$	24
19	$3 \times 5 =$	15	41	$8 \times 3 =$	24
20	$5 \times 4 =$	20	42	$3 \times 9 =$	27
21	$4 \times 5 =$	20	43	$9 \times 3 =$	27
22	$5 \times 5 =$	25	44	$4 \times 4 =$	16

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B

Improvement _____

Correct _____

Multiply.

1	$5 \times 2 =$	10	23	$2 \times 6 =$	12
2	$2 \times 5 =$	10	24	$6 \times 2 =$	12
3	$5 \times 3 =$	15	25	$2 \times 7 =$	14
4	$3 \times 5 =$	15	26	$7 \times 2 =$	14
5	$5 \times 4 =$	20	27	$2 \times 8 =$	16
6	$4 \times 5 =$	20	28	$8 \times 2 =$	16
7	$5 \times 5 =$	25	29	$2 \times 9 =$	18
8	$5 \times 6 =$	30	30	$9 \times 2 =$	18
9	$6 \times 5 =$	30	31	$2 \times 10 =$	20
10	$5 \times 7 =$	35	32	$10 \times 2 =$	20
11	$7 \times 5 =$	35	33	$3 \times 3 =$	9
12	$5 \times 8 =$	40	34	$3 \times 4 =$	12
13	$8 \times 5 =$	40	35	$4 \times 3 =$	12
14	$5 \times 9 =$	45	36	$3 \times 6 =$	18
15	$9 \times 5 =$	45	37	$6 \times 3 =$	18
16	$5 \times 10 =$	50	38	$3 \times 7 =$	21
17	$10 \times 5 =$	50	39	$7 \times 3 =$	21
18	$2 \times 2 =$	4	40	$3 \times 8 =$	24
19	$2 \times 3 =$	6	41	$8 \times 3 =$	24
20	$3 \times 2 =$	6	42	$3 \times 9 =$	27
21	$2 \times 4 =$	8	43	$9 \times 3 =$	27
22	$4 \times 2 =$	8	44	$3 \times 3 =$	9

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Lesson 2:

Apply the distributive and commutative properties to relate multiplication facts $5 \times n + n$ to $6 \times n$ and $n \times 6$ where n is the size of the unit.

Date:

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3.A.20

Multiply.

$6 \times 1 = \underline{6}$ $6 \times 2 = \underline{12}$ $6 \times 3 = \underline{18}$ $6 \times 4 = \underline{24}$

$6 \times 5 = \underline{30}$ $6 \times 1 = \underline{6}$ $6 \times 2 = \underline{12}$ $6 \times 1 = \underline{6}$

$6 \times 3 = \underline{18}$ $6 \times 1 = \underline{6}$ $6 \times 4 = \underline{24}$ $6 \times 1 = \underline{6}$

$6 \times 5 = \underline{30}$ $6 \times 1 = \underline{6}$ $6 \times 2 = \underline{12}$ $6 \times 3 = \underline{18}$

$6 \times 2 = \underline{12}$ $6 \times 4 = \underline{24}$ $6 \times 2 = \underline{12}$ $6 \times 5 = \underline{30}$

$6 \times 2 = \underline{12}$ $6 \times 1 = \underline{6}$ $6 \times 2 = \underline{12}$ $6 \times 3 = \underline{18}$

$6 \times 1 = \underline{6}$ $6 \times 3 = \underline{18}$ $6 \times 2 = \underline{12}$ $6 \times 3 = \underline{18}$

$6 \times 4 = \underline{24}$ $6 \times 3 = \underline{18}$ $6 \times 5 = \underline{30}$ $6 \times 3 = \underline{18}$

$6 \times 4 = \underline{24}$ $6 \times 1 = \underline{6}$ $6 \times 4 = \underline{24}$ $6 \times 2 = \underline{12}$

$6 \times 4 = \underline{24}$ $6 \times 3 = \underline{18}$ $6 \times 4 = \underline{24}$ $6 \times 5 = \underline{30}$

$6 \times 4 = \underline{24}$ $6 \times 5 = \underline{30}$ $6 \times 1 = \underline{6}$ $6 \times 5 = \underline{30}$

$6 \times 2 = \underline{12}$ $6 \times 5 = \underline{30}$ $6 \times 3 = \underline{18}$ $6 \times 5 = \underline{30}$

$6 \times 4 = \underline{24}$ $6 \times 2 = \underline{12}$ $6 \times 4 = \underline{24}$ $6 \times 3 = \underline{18}$

$6 \times 5 = \underline{30}$ $6 \times 3 = \underline{18}$ $6 \times 2 = \underline{6}$ $6 \times 4 = \underline{24}$

$6 \times 3 = \underline{18}$ $6 \times 5 = \underline{30}$ $6 \times 2 = \underline{12}$ $6 \times 4 = \underline{24}$

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Lesson 5:

Date:

Count by units of 7 to multiply and divide using number bonds to decompose.
7/31/13

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3.B.19

Multiply.

$6 \times 1 = \underline{6}$ $6 \times 2 = \underline{12}$ $6 \times 3 = \underline{18}$ $6 \times 4 = \underline{24}$

$6 \times 5 = \underline{30}$ $6 \times 6 = \underline{36}$ $6 \times 7 = \underline{42}$ $6 \times 8 = \underline{48}$

$6 \times 9 = \underline{54}$ $6 \times 10 = \underline{60}$ $6 \times 5 = \underline{30}$ $6 \times 6 = \underline{36}$

$6 \times 5 = \underline{30}$ $6 \times 7 = \underline{42}$ $6 \times 5 = \underline{30}$ $6 \times 8 = \underline{48}$

$6 \times 5 = \underline{30}$ $6 \times 9 = \underline{54}$ $6 \times 5 = \underline{30}$ $6 \times 10 = \underline{60}$

$6 \times 6 = \underline{36}$ $6 \times 5 = \underline{30}$ $6 \times 6 = \underline{36}$ $6 \times 7 = \underline{42}$

$6 \times 6 = \underline{36}$ $6 \times 8 = \underline{48}$ $6 \times 6 = \underline{36}$ $6 \times 9 = \underline{54}$

$6 \times 6 = \underline{36}$ $6 \times 7 = \underline{42}$ $6 \times 6 = \underline{36}$ $6 \times 7 = \underline{42}$

$6 \times 8 = \underline{48}$ $6 \times 7 = \underline{42}$ $6 \times 9 = \underline{54}$ $6 \times 7 = \underline{42}$

$6 \times 8 = \underline{48}$ $6 \times 6 = \underline{36}$ $6 \times 8 = \underline{48}$ $6 \times 7 = \underline{42}$

$6 \times 8 = \underline{48}$ $6 \times 9 = \underline{54}$ $6 \times 9 = \underline{\quad}$ $6 \times 6 = \underline{36}$

$6 \times 9 = \underline{54}$ $6 \times 7 = \underline{42}$ $6 \times 9 = \underline{54}$ $6 \times 8 = \underline{48}$

$6 \times 9 = \underline{54}$ $6 \times 8 = \underline{48}$ $6 \times 6 = \underline{36}$ $6 \times 9 = \underline{54}$

$6 \times 7 = \underline{42}$ $6 \times 9 = \underline{54}$ $6 \times 6 = \underline{36}$ $6 \times 8 = \underline{48}$

$6 \times 9 = \underline{54}$ $6 \times 7 = \underline{42}$ $6 \times 6 = \underline{36}$ $6 \times 8 = \underline{48}$

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Multiply.

$7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 3 = 21$ $7 \times 4 = 28$

$7 \times 5 = 35$ $7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 1 = 7$

$7 \times 3 = 21$ $7 \times 1 = 7$ $7 \times 4 = 28$ $7 \times 1 = 7$

$7 \times 5 = 35$ $7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 3 = 21$

$7 \times 2 = 14$ $7 \times 4 = 28$ $7 \times 2 = 14$ $7 \times 5 = 35$

$7 \times 2 = 14$ $7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 3 = 21$

$7 \times 1 = 7$ $7 \times 3 = 21$ $7 \times 2 = 14$ $7 \times 3 = 21$

$7 \times 4 = 28$ $7 \times 3 = 21$ $7 \times 5 = 35$ $7 \times 3 = 21$

$7 \times 4 = 28$ $7 \times 1 = 7$ $7 \times 4 = 28$ $7 \times 2 = 14$

$7 \times 4 = 28$ $7 \times 3 = 21$ $7 \times 4 = 28$ $7 \times 5 = 35$

$7 \times 4 = 28$ $7 \times 5 = 35$ $7 \times 1 = 7$ $7 \times 5 = 35$

$7 \times 2 = 14$ $7 \times 5 = 35$ $7 \times 3 = 21$ $7 \times 5 =$ _____

$7 \times 4 = 28$ $7 \times 2 = 14$ $7 \times 4 = 28$ $7 \times 3 =$ _____

$7 \times 5 = 35$ $7 \times 3 = 21$ $7 \times 2 = 14$ $7 \times 4 =$ _____

$7 \times 3 = 21$ $7 \times 5 = 35$ $7 \times 2 = 14$ $7 \times 4 =$ _____

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COMMON CORE

Lesson 7:

Date:

Interpret the unknown in multiplication and division to model and solve problems using units of 6 and 7.
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3.B.41

Multiply.

$7 \times 1 = 7$ $7 \times 2 = 14$ $7 \times 3 = 21$ $7 \times 4 = 28$

$7 \times 5 = 35$ $7 \times 6 = 42$ $7 \times 7 = 49$ $7 \times 8 = 56$

$7 \times 9 = 63$ $7 \times 10 = 70$ $7 \times 5 = 35$ $7 \times 6 = 42$

$7 \times 5 = 35$ $7 \times 7 = 49$ $7 \times 5 = 35$ $7 \times 8 = 56$

$7 \times 5 = 35$ $7 \times 9 = 63$ $7 \times 5 = 35$ $7 \times 10 = 70$

$7 \times 6 = 42$ $7 \times 5 = 35$ $7 \times 6 = 42$ $7 \times 7 = 49$

$7 \times 6 = 42$ $7 \times 8 = 56$ $7 \times 6 = 42$ $7 \times 9 = 63$

$7 \times 6 = 42$ $7 \times 7 = 49$ $7 \times 6 = 42$ $7 \times 7 = 49$

$7 \times 8 = 56$ $7 \times 7 = 49$ $7 \times 9 = 63$ $7 \times 7 = 49$

$7 \times 8 = 56$ $7 \times 6 = 42$ $7 \times 8 = 56$ $7 \times 7 = 49$

$7 \times 8 = 56$ $7 \times 9 = 63$ $7 \times 9 = 63$ $7 \times 6 = 42$

$7 \times 9 = 63$ $7 \times 7 = 49$ $7 \times 9 = 63$ $7 \times 8 = 56$

$7 \times 9 = 63$ $7 \times 8 = 56$ $7 \times 6 = 42$ $7 \times 9 = 63$

$7 \times 7 = 49$ $7 \times 9 = 63$ $7 \times 6 = 42$ $7 \times 8 = 56$

$7 \times 9 = 63$ $7 \times 7 = 49$ $7 \times 6 = 42$ $7 \times 8 = 56$

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COMMON CORE

Lesson 8:

Date:

Understand the function of parenthesis and apply to solving problems.
7/31/13

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3.C.8

Multiply.

$8 \times 1 = 8$ $8 \times 2 = 16$ $8 \times 3 = 24$ $8 \times 4 = 32$

$8 \times 5 = 40$ $8 \times 1 = 8$ $8 \times 2 = 16$ $8 \times 1 = 8$

$8 \times 3 = 24$ $8 \times 1 = 8$ $8 \times 4 = 32$ $8 \times 1 = 8$

$8 \times 5 = 40$ $8 \times 1 = 8$ $8 \times 2 = 16$ $8 \times 3 = 24$

$8 \times 2 = 16$ $8 \times 4 = 32$ $8 \times 2 = 16$ $8 \times 5 = 40$

$8 \times 2 = 16$ $8 \times 1 = 8$ $8 \times 2 = 16$ $8 \times 3 = 24$

$8 \times 1 = 8$ $8 \times 3 = 24$ $8 \times 2 = 16$ $8 \times 3 = 24$

$8 \times 4 = 32$ $8 \times 3 = 24$ $8 \times 5 = 40$ $8 \times 3 = 24$

$8 \times 4 = 32$ $8 \times 1 = 8$ $8 \times 4 = 32$ $8 \times 2 = 16$

$8 \times 4 = 32$ $8 \times 3 = 24$ $8 \times 4 = 32$ $8 \times 5 = 40$

$8 \times 4 = 32$ $8 \times 5 = 40$ $8 \times 1 = 8$ $8 \times 5 = 40$

$8 \times 2 = 16$ $8 \times 5 = 40$ $8 \times 3 = 24$ $8 \times 5 = 40$

$8 \times 4 = 32$ $8 \times 2 = 16$ $8 \times 4 = 32$ $8 \times 3 = 24$

$8 \times 5 = 40$ $8 \times 3 = 24$ $8 \times 2 = 16$ $8 \times 4 = 32$

$8 \times 3 = 24$ $8 \times 5 = 40$ $8 \times 2 = 16$ $8 \times 4 = 32$

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COMMON CORE

Lesson 11:

Date:

Interpret the unknown in multiplication and division to model and solve problems.
7/31/13

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3.C.41

Multiply.

$8 \times 1 = \underline{8}$ $8 \times 2 = \underline{16}$ $8 \times 3 = \underline{24}$ $8 \times 4 = \underline{32}$

$8 \times 5 = \underline{40}$ $8 \times 6 = \underline{48}$ $8 \times 7 = \underline{56}$ $8 \times 8 = \underline{64}$

$8 \times 9 = \underline{72}$ $8 \times 10 = \underline{80}$ $8 \times 5 = \underline{40}$ $8 \times 6 = \underline{48}$

$8 \times 5 = \underline{40}$ $8 \times 7 = \underline{56}$ $8 \times 5 = \underline{40}$ $8 \times 8 = \underline{64}$

$8 \times 5 = \underline{40}$ $8 \times 9 = \underline{72}$ $8 \times 5 = \underline{40}$ $8 \times 10 = \underline{80}$

$8 \times 6 = \underline{48}$ $8 \times 5 = \underline{40}$ $8 \times 6 = \underline{48}$ $8 \times 7 = \underline{56}$

$8 \times 6 = \underline{48}$ $8 \times 8 = \underline{64}$ $8 \times 6 = \underline{48}$ $8 \times 9 = \underline{72}$

$8 \times 6 = \underline{48}$ $8 \times 7 = \underline{56}$ $8 \times 6 = \underline{48}$ $8 \times 7 = \underline{56}$

$8 \times 8 = \underline{64}$ $8 \times 7 = \underline{56}$ $8 \times 9 = \underline{72}$ $8 \times 7 = \underline{56}$

$8 \times 8 = \underline{64}$ $8 \times 6 = \underline{48}$ $8 \times 8 = \underline{64}$ $8 \times 7 = \underline{56}$

$8 \times 8 = \underline{64}$ $8 \times 9 = \underline{72}$ $8 \times 9 = \underline{72}$ $8 \times 6 = \underline{48}$

$8 \times 9 = \underline{72}$ $8 \times 7 = \underline{56}$ $8 \times 9 = \underline{72}$ $8 \times 8 = \underline{64}$

$8 \times 9 = \underline{72}$ $8 \times 8 = \underline{64}$ $8 \times 6 = \underline{48}$ $8 \times 9 = \underline{72}$

$8 \times 7 = \underline{56}$ $8 \times 9 = \underline{72}$ $8 \times 6 = \underline{48}$ $8 \times 8 = \underline{64}$

$8 \times 9 = \underline{72}$ $8 \times 7 = \underline{56}$ $8 \times 6 = \underline{48}$ $8 \times 8 = \underline{64}$

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Lesson 12:

Date:

Apply the distributive property and the fact $9 = 10 - 1$ as a strategy to multiply.
7/31/13

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3.D.8

A

Correct _____

Multiply or divide.

1	$2 \times 8 =$	16	23	$__ \times 8 = 80$	10
2	$3 \times 8 =$	24	24	$__ \times 8 = 32$	4
3	$4 \times 8 =$	32	25	$__ \times 8 = 24$	3
4	$5 \times 8 =$	40	26	$80 \div 8 =$	10
5	$1 \times 8 =$	8	27	$40 \div 8 =$	5
6	$16 \div 8 =$	2	28	$8 \div 1 =$	8
7	$24 \div 8 =$	3	29	$16 \div 8 =$	2
8	$40 \div 8 =$	5	30	$24 \div 8 =$	3
9	$8 \div 1 =$	8	31	$__ \times 8 = 48$	6
10	$32 \div 8 =$	4	32	$__ \times 8 = 56$	7
11	$6 \times 8 =$	48	33	$__ \times 8 = 72$	9
12	$7 \times 8 =$	56	34	$__ \times 8 = 64$	8
13	$8 \times 8 =$	64	35	$56 \div 8 =$	7
14	$9 \times 8 =$	72	36	$72 \div 8 =$	9
15	$10 \times 8 =$	80	37	$48 \div 8 =$	6
16	$64 \div 8 =$	8	38	$64 \div 8 =$	8
17	$56 \div 8 =$	7	39	$11 \times 8 =$	88
18	$72 \div 8 =$	9	40	$88 \div 8 =$	11
19	$48 \div 8 =$	6	41	$12 \times 8 =$	96
20	$80 \div 8 =$	10	42	$96 \div 8 =$	12
21	$__ \times 8 = 40$	5	43	$14 \times 8 =$	112
22	$__ \times 8 = 16$	2	44	$112 \div 8 =$	14

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B Improvement _____ # Correct _____

Multiply or divide.

1	$1 \times 8 =$	8	23	$__ \times 8 = 48$	6
2	$2 \times 8 =$	16	24	$__ \times 8 = 80$	10
3	$3 \times 8 =$	24	25	$__ \times 8 = 24$	3
4	$4 \times 8 =$	32	26	$16 \div 8 =$	2
5	$5 \times 8 =$	40	27	$8 \div 1 =$	8
6	$24 \div 8 =$	3	28	$80 \div 8 =$	10
7	$16 \div 8 =$	2	29	$40 \div 8 =$	5
8	$32 \div 8 =$	4	30	$24 \div 8 =$	3
9	$8 \div 1 =$	8	31	$__ \times 8 = 64$	8
10	$40 \div 8 =$	5	32	$__ \times 8 = 32$	4
11	$10 \times 8 =$	80	33	$__ \times 8 = 72$	9
12	$6 \times 8 =$	48	34	$__ \times 8 = 56$	7
13	$7 \times 8 =$	56	35	$64 \div 8 =$	8
14	$8 \times 8 =$	64	36	$72 \div 8 =$	9
15	$9 \times 8 =$	72	37	$48 \div 8 =$	6
16	$56 \div 8 =$	7	38	$56 \div 8 =$	7
17	$48 \div 8 =$	6	39	$11 \times 8 =$	88
18	$64 \div 8 =$	8	40	$88 \div 8 =$	11
19	$80 \div 8 =$	10	41	$12 \times 8 =$	12
20	$72 \div 8 =$	9	42	$96 \div 8 =$	10 11 12
21	$__ \times 8 = 16$	2	43	$13 \times 8 =$	10 104
22	$__ \times 8 = 40$	5	44	$104 \div 8 =$	13

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Multiply.

$9 \times 1 = \underline{9}$ $9 \times 2 = \underline{18}$ $9 \times 3 = \underline{27}$ $9 \times 4 = \underline{36}$

$9 \times 5 = \underline{45}$ $9 \times 1 = \underline{9}$ $9 \times 2 = \underline{18}$ $9 \times 1 = \underline{9}$

$9 \times 3 = \underline{27}$ $9 \times 1 = \underline{9}$ $9 \times 4 = \underline{36}$ $9 \times 1 = \underline{9}$

$9 \times 5 = \underline{45}$ $9 \times 1 = \underline{9}$ $9 \times 2 = \underline{18}$ $9 \times 3 = \underline{27}$

$9 \times 2 = \underline{18}$ $9 \times 4 = \underline{36}$ $9 \times 2 = \underline{18}$ $9 \times 5 = \underline{45}$

$9 \times 2 = \underline{18}$ $9 \times 1 = \underline{9}$ $9 \times 2 = \underline{18}$ $9 \times 3 = \underline{27}$

$9 \times 1 = \underline{9}$ $9 \times 3 = \underline{27}$ $9 \times 2 = \underline{18}$ $9 \times 3 = \underline{27}$

$9 \times 4 = \underline{36}$ $9 \times 3 = \underline{27}$ $9 \times 5 = \underline{45}$ $9 \times 3 = \underline{27}$

$9 \times 4 = \underline{36}$ $9 \times 1 = \underline{9}$ $9 \times 4 = \underline{36}$ $9 \times 2 = \underline{18}$

$9 \times 4 = \underline{36}$ $9 \times 3 = \underline{27}$ $9 \times 4 = \underline{36}$ $9 \times 5 = \underline{45}$

$9 \times 4 = \underline{36}$ $9 \times 5 = \underline{45}$ $9 \times 1 = \underline{9}$ $9 \times 5 = \underline{45}$

$9 \times 2 = \underline{18}$ $9 \times 5 = \underline{45}$ $9 \times 3 = \underline{27}$ $9 \times 5 = \underline{45}$

$9 \times 4 = \underline{36}$ $9 \times 2 = \underline{18}$ $9 \times 4 = \underline{36}$ $9 \times 3 = \underline{27}$

$9 \times 5 = \underline{45}$ $9 \times 3 = \underline{27}$ $9 \times 2 = \underline{18}$ $9 \times 4 = \underline{36}$

$9 \times 3 = \underline{27}$ $9 \times 5 = \underline{45}$ $9 \times 2 = \underline{18}$ $9 \times 4 = \underline{36}$

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Lesson 14:
Date:Identify and use arithmetic patterns to multiply.
7/31/13engage^{ny}

3.D.34

Multiply.

$9 \times 1 = \underline{9}$ $9 \times 2 = \underline{18}$ $9 \times 3 = \underline{27}$ $9 \times 4 = \underline{36}$

$9 \times 5 = \underline{45}$ $9 \times 6 = \underline{54}$ $9 \times 7 = \underline{63}$ $9 \times 8 = \underline{72}$

$9 \times 9 = \underline{81}$ $9 \times 10 = \underline{90}$ $9 \times 5 = \underline{45}$ $9 \times 6 = \underline{54}$

$9 \times 5 = \underline{45}$ $9 \times 7 = \underline{63}$ $9 \times 5 = \underline{45}$ $9 \times 8 = \underline{72}$

$9 \times 5 = \underline{45}$ $9 \times 9 = \underline{81}$ $9 \times 5 = \underline{45}$ $9 \times 10 = \underline{90}$

$9 \times 6 = \underline{54}$ $9 \times 5 = \underline{45}$ $9 \times 6 = \underline{54}$ $9 \times 7 = \underline{63}$

$9 \times 6 = \underline{54}$ $9 \times 8 = \underline{72}$ $9 \times 6 = \underline{54}$ $9 \times 9 = \underline{81}$

$9 \times 6 = \underline{54}$ $9 \times 7 = \underline{63}$ $9 \times 6 = \underline{54}$ $9 \times 7 = \underline{63}$

$9 \times 8 = \underline{72}$ $9 \times 7 = \underline{63}$ $9 \times 9 = \underline{81}$ $9 \times 7 = \underline{63}$

$9 \times 8 = \underline{72}$ $9 \times 6 = \underline{54}$ $9 \times 8 = \underline{72}$ $9 \times 7 = \underline{63}$

$9 \times 8 = \underline{72}$ $9 \times 9 = \underline{81}$ $9 \times 9 = \underline{81}$ $9 \times 6 = \underline{54}$

$9 \times 9 = \underline{81}$ $9 \times 7 = \underline{63}$ $9 \times 9 = \underline{81}$ $9 \times 8 = \underline{72}$

$9 \times 9 = \underline{81}$ $9 \times 8 = \underline{72}$ $9 \times 6 = \underline{54}$ $9 \times 9 = \underline{81}$

$9 \times 7 = \underline{63}$ $9 \times 9 = \underline{81}$ $9 \times 6 = \underline{54}$ $9 \times 8 = \underline{72}$

$9 \times 9 = \underline{81}$ $9 \times 7 = \underline{63}$ $9 \times 6 = \underline{54}$ $9 \times 8 = \underline{72}$

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A

Correct _____

Multiply or divide.

1	$2 \times 9 =$	18	23	$__ \times 9 = 90$	10
2	$3 \times 9 =$	27	24	$__ \times 9 = 18$	2
3	$4 \times 9 =$	36	25	$__ \times 9 = 27$	3
4	$5 \times 9 =$	45	26	$90 \div 9 =$	10
5	$1 \times 9 =$	9	27	$45 \div 9 =$	5
6	$18 \div 9 =$	2	28	$9 \div 9 =$	1
7	$27 \div 9 =$	3	29	$18 \div 9 =$	2
8	$45 \div 9 =$	5	30	$27 \div 9 =$	3
9	$9 \div 9 =$	1	31	$__ \times 9 = 54$	6
10	$36 \div 9 =$	4	32	$__ \times 9 = 63$	7
11	$6 \times 9 =$	54	33	$__ \times 9 = 81$	9
12	$7 \times 9 =$	63	34	$__ \times 9 = 72$	8
13	$8 \times 9 =$	72	35	$63 \div 9 =$	7
14	$9 \times 9 =$	81	36	$81 \div 9 =$	9
15	$10 \times 9 =$	90	37	$54 \div 9 =$	6
16	$72 \div 9 =$	8	38	$72 \div 9 =$	8
17	$63 \div 9 =$	7	39	$11 \times 9 =$	99
18	$81 \div 9 =$	9	40	$99 \div 9 =$	11
19	$54 \div 9 =$	6	41	$12 \times 9 =$	108
20	$90 \div 9 =$	10	42	$108 \div 9 =$	12
21	$__ \times 9 = 45$	5	43	$14 \times 9 =$	126
22	$__ \times 9 = 9$	1	44	$126 \div 9 =$	14

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Lesson 16:
Date:

Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division.
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3.E.8

B

Improvement _____ # Correct _____

Multiply or divide.

1	$1 \times 9 =$	9	23	$__ \times 9 = 18$	2
2	$2 \times 9 =$	18	24	$__ \times 9 = 90$	10
3	$3 \times 9 =$	27	25	$__ \times 9 = 27$	3
4	$4 \times 9 =$	36	26	$18 \div 9 =$	2
5	$5 \times 9 =$	45	27	$9 \div 9 =$	1
6	$27 \div 9 =$	3	28	$90 \div 9 =$	10
7	$18 \div 9 =$	2	29	$45 \div 9 =$	5
8	$36 \div 9 =$	4	30	$27 \div 9 =$	3
9	$9 \div 9 =$	1	31	$__ \times 9 = 27$	3
10	$45 \div 9 =$	5	32	$__ \times 9 = 36$	4
11	$10 \times 9 =$	90	33	$__ \times 9 = 81$	9
12	$6 \times 9 =$	54	34	$__ \times 9 = 63$	7
13	$7 \times 9 =$	63	35	$72 \div 9 =$	8
14	$8 \times 9 =$	72	36	$81 \div 9 =$	9
15	$9 \times 9 =$	81	37	$54 \div 9 =$	6
16	$63 \div 9 =$	7	38	$63 \div 9 =$	7
17	$54 \div 9 =$	6	39	$11 \times 9 =$	99
18	$72 \div 9 =$	8	40	$99 \div 9 =$	11
19	$90 \div 9 =$	10	41	$12 \times 9 =$	108
20	$81 \div 9 =$	9	42	$108 \div 9 =$	12
21	$__ \times 9 = 9$	1	43	$13 \times 9 =$	117
22	$__ \times 9 = 45$	5	44	$117 \div 9 =$	13

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COMMON CORE

Lesson 16:

Date:

Reason about and explain arithmetic patterns using units of 0 and 1 as they relate to multiplication and division.
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3.E.9

A

Correct _____

Complete the number sentence.

1	$__ \times 1 = 2$	2	23	$9 \div __ = 9$	1
2	$__ \times 1 = 3$	3	24	$8 \times __ = 8$	1
3	$__ \times 1 = 4$	4	25	$__ \times 1 = 1$	1
4	$__ \times 1 = 9$	9	26	$0 \div 3 = __$	0
5	$8 \times __ = 0$	0	27	$__ \times 1 = 7$	7
6	$9 \times __ = 0$	0	28	$6 \times __ = 0$	0
7	$4 \times __ = 0$	0	29	$4 \times __ = 4$	1
8	$5 \times __ = 5$	1	30	$0 \div 8 = __$	0
9	$6 \times __ = 6$	1	31	$0 \times __ = 0$	0
10	$7 \times __ = 7$	1	32	$1 \div 1 = __$	1
11	$3 \times __ = 3$	1	33	$__ \times 1 = 24$	24
12	$0 \div 1 = __$	0	34	$17 \times __ = 0$	0
13	$0 \div 2 = __$	0	35	$32 \times __ = 32$	1
14	$0 \div 3 = __$	0	36	$0 \div 19 = __$	0
15	$0 \div 6 = __$	0	37	$46 \times __ = 0$	0
16	$1 \times __ = 1$	1	38	$0 \div 51 = __$	0
17	$4 \div __ = 4$	1	39	$64 \times __ = 64$	1
18	$5 \div __ = 5$	1	40	$__ \times 1 = 79$	79
19	$6 \div __ = 6$	1	41	$0 \div 82 = __$	0
20	$8 \div __ = 8$	1	42	$__ \times 1 = 96$	96
21	$__ \times 1 = 5$	5	43	$27 \times __ = 27$	1
22	$3 \times __ = 0$	0	44	$43 \times __ = 0$	0

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B Improvement _____ # Correct _____

Complete the number sentence.

1	$__ \times 1 = 3$	3	23	$8 \div __ = 8$	1
2	$__ \times 1 = 4$	4	24	$7 \times __ = 7$	1
3	$__ \times 1 = 5$	5	25	$__ \times 1 = 1$	1
4	$__ \times 1 = 8$	8	26	$0 \div 5 = __$	0
5	$7 \times __ = 0$	0	27	$__ \times 1 = 9$	9
6	$8 \times __ = 0$	0	28	$5 \times __ = 0$	0
7	$3 \times __ = 0$	0	29	$9 \times __ = 9$	1
8	$4 \times __ = 4$	1	30	$0 \div 6 = __$	0
9	$5 \times __ = 5$	1	31	$1 \div 1 = __$	0
10	$6 \times __ = 6$	1	32	$0 \times __ = 0$	0
11	$2 \times __ = 2$	1	33	$__ \times 1 = 34$	34
12	$0 \div 2 = __$	0	34	$16 \times __ = 0$	0
13	$0 \div 3 = __$	0	35	$31 \times __ = 31$	1
14	$0 \div 4 = __$	0	36	$0 \div 18 = __$	0
15	$0 \div 7 = __$	0	37	$45 \times __ = 0$	0
16	$1 \times __ = 1$	1	38	$0 \div 52 = __$	0
17	$3 \div __ = 3$	1	39	$63 \times __ = 63$	1
18	$4 \div __ = 4$	1	40	$__ \times 1 = 78$	78
19	$5 \div __ = 5$	1	41	$0 \div 81 = __$	0
20	$7 \div __ = 7$	1	42	$__ \times 1 = 97$	97
21	$__ \times 1 = 6$	6	43	$26 \times __ = 26$	1
22	$4 \times __ = 0$	0	44	$42 \times __ = 0$	0

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A

Correct _____

Multiply.

1	$2 \times 3 =$	6	23	$8 \times 40 =$	320
2	$2 \times 30 =$	60	24	$80 \times 4 =$	320
3	$20 \times 3 =$	60	25	$9 \times 6 =$	54
4	$2 \times 2 =$	4	26	$90 \times 6 =$	540
5	$2 \times 20 =$	40	27	$2 \times 5 =$	10
6	$20 \times 2 =$	40	28	$2 \times 50 =$	100
7	$4 \times 2 =$	8	29	$3 \times 90 =$	270
8	$4 \times 20 =$	80	30	$40 \times 7 =$	280
9	$40 \times 2 =$	80	31	$5 \times 40 =$	200
10	$5 \times 3 =$	15	32	$6 \times 60 =$	360
11	$50 \times 3 =$	150	33	$70 \times 6 =$	420
12	$3 \times 50 =$	150	34	$8 \times 70 =$	560
13	$4 \times 4 =$	16	35	$80 \times 6 =$	480
14	$40 \times 4 =$	160	36	$9 \times 70 =$	630
15	$4 \times 40 =$	160	37	$50 \times 6 =$	300
16	$6 \times 3 =$	18	38	$8 \times 80 =$	640
17	$6 \times 30 =$	180	39	$9 \times 80 =$	720
18	$60 \times 3 =$	180	40	$60 \times 8 =$	480
19	$7 \times 5 =$	35	41	$70 \times 7 =$	490
20	$70 \times 5 =$	350	42	$5 \times 80 =$	400
21	$7 \times 50 =$	350	43	$60 \times 9 =$	540
22	$8 \times 4 =$	32	44	$9 \times 90 =$	810

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Lesson 21:
Date:

Solve two-step word problems involving multiplying single-digit factors and multiples of 10.
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3.F.27

B Improvement _____ # Correct _____

Multiply.

1	$4 \times 2 =$	8	23	$9 \times 40 =$	360
2	$4 \times 20 =$	80	24	$90 \times 4 =$	360
3	$40 \times 2 =$	80	25	$8 \times 6 =$	48
4	$3 \times 3 =$	9	26	$80 \times 6 =$	480
5	$3 \times 30 =$	90	27	$5 \times 2 =$	10
6	$30 \times 3 =$	90	28	$5 \times 20 =$	100
7	$3 \times 2 =$	6	29	$3 \times 80 =$	240
8	$3 \times 20 =$	60	30	$40 \times 8 =$	320
9	$30 \times 2 =$	60	31	$4 \times 50 =$	200
10	$5 \times 5 =$	25	32	$8 \times 80 =$	640
11	$50 \times 5 =$	250	33	$90 \times 6 =$	540
12	$5 \times 50 =$	250	34	$6 \times 70 =$	420
13	$4 \times 3 =$	12	35	$60 \times 6 =$	360
14	$40 \times 3 =$	120	36	$7 \times 70 =$	490
15	$4 \times 30 =$	120	37	$60 \times 5 =$	300
16	$7 \times 3 =$	21	38	$6 \times 80 =$	480
17	$7 \times 30 =$	210	39	$7 \times 80 =$	560
18	$70 \times 3 =$	210	40	$80 \times 6 =$	480
19	$6 \times 4 =$	24	41	$90 \times 7 =$	630
20	$60 \times 4 =$	240	42	$8 \times 50 =$	400
21	$6 \times 40 =$	240	43	$80 \times 9 =$	720
22	$9 \times 4 =$	36	44	$7 \times 90 =$	630

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Lesson 21:
Date:

Solve two-step word problems involving multiplying single-digit factors and multiples of 10.
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3.F.28

