

Unit 3: Number Sense

Quiz (Lessons 14–16) — ON

Name: _____

Date: _____

1. Find the answer by turning the product into a smaller product and a sum.

a) $6 \times 8 =$ _____

$=$ _____

$=$ _____

b) $7 \times 6 =$ _____

$=$ _____

$=$ _____

2. Multiply.

a) $3 \times 40 =$ _____

b) $4 \times 500 =$ _____

c) $6 \times 300 =$ _____

d) $9 \times 200 =$ _____

3. Multiply.

a) $6 \times 4 =$ _____

b) $5 \times 3 =$ _____

c) $4 \times 9 =$ _____

$60 \times 400 =$ _____

$500 \times 30 =$ _____

$400 \times 90 =$ _____

4. Double 3 times the number to find 6 times the number. Then find 12 times the number by doubling again.

a) $3 \times 7 =$ _____

so $6 \times 7 =$ _____

and $12 \times 7 =$ _____

b) $3 \times 8 =$ _____

so $6 \times 8 =$ _____

and $12 \times 8 =$ _____

BONUS ► $3 \times 40 =$ _____

so $6 \times 40 =$ _____

and $12 \times 40 =$ _____

5. Multiply by finding a multiple of 10.

a) $5 \times 29 \times 2 =$ _____

$=$ _____

$=$ _____

b) $4 \times 43 \times 5 =$ _____

$=$ _____

$=$ _____

Unit 3: Number Sense

Answer Key

Quiz (Lessons 14–16) — ON

1. a) $(5 \times 8) + 8$
40 + 8
48
b) $(6 \times 6) + 6$
36 + 6
42
2. a) 120
b) 2000
c) 1800
d) 1800
3. a) 24
24 000
b) 15
15 000
c) 36
36 000
4. a) 21
42
84
b) 24
48
96

BONUS

- 120
240
480
5. a) $5 \times 2 \times 29$
 10×29
290
b) $4 \times 5 \times 43$
 20×43
860

Unit 3: Number Sense

Quiz (Lessons 17, 18) — ON

Name: _____

Date: _____

1. Rewrite the product in expanded form. Find the product.

a) $5 \times 24 =$ _____

$=$ _____

$=$ _____

b) $7 \times 43 =$ _____

$=$ _____

$=$ _____

c) $6 \times 67 =$ _____

$=$ _____

$=$ _____

d) $8 \times 56 =$ _____

$=$ _____

$=$ _____

2. A painter needs to buy a plastic sheet to cover the floor of the room she is painting. The dimensions must be 9 m by 35 m. Write the dimensions as a product in expanded form and solve.

3. Multiply.

a)

| | | |
|-------|---|---|
| | 6 | 3 |
| x | | 2 |
| <hr/> | | |
| | | |

b)

| | | |
|-------|---|---|
| | 7 | 4 |
| x | | 2 |
| <hr/> | | |
| | | |

c)

| | | |
|-------|---|---|
| | 9 | 4 |
| x | | 2 |
| <hr/> | | |
| | | |

d)

| | | |
|-------|---|---|
| | 9 | 2 |
| x | | 3 |
| <hr/> | | |
| | | |

4. Multiply. Regroup when you need to.

a)

| | | |
|-------|---|---|
| | | |
| | 6 | 8 |
| x | | 3 |
| <hr/> | | |
| | | |

b)

| | | |
|-------|---|---|
| | | |
| | 4 | 9 |
| x | | 5 |
| <hr/> | | |
| | | |

c)

| | | |
|-------|---|---|
| | | |
| | 2 | 7 |
| x | | 6 |
| <hr/> | | |
| | | |

d)

| | | |
|-------|---|---|
| | | |
| | 7 | 4 |
| x | | 9 |
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5. A square is painted on the ground in the schoolyard. All four sides are 17 m long. Multiply using a grid to determine the total length of the sides.

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Unit 3: Number Sense

Answer Key

Quiz (Lessons 17, 18) — ON

1. a) $(5 \times 20) + (5 \times 4)$
100 + 20
120
- b) $(7 \times 40) + (7 \times 3)$
280 + 21
301
- c) $(6 \times 60) + (6 \times 7)$
360 + 42
402
- d) $(8 \times 50) + (8 \times 6)$
400 + 48
448
2. $9 \times 35 = (9 \times 30) + (9 \times 5)$
 $= 270 + 45 = 315$
3. a) 126
b) 148
c) 162
d) 276
4. a) 204
b) 245
c) 188
d) 666

5.

| | | | |
|---|---|---|--|
| | | 2 | |
| | 1 | 7 | |
| x | | 4 | |
| | 6 | 8 | |

Unit 3: Number Sense

Quiz (Lessons 20, 21) — ON

Name: _____

Date: _____

1. Estimate the product by rounding to the nearest hundred.

a) $432 \times 205 \approx$ _____ b) $868 \times 391 \approx$ _____

2. Hanna donated 82 hardcover books to charity. She estimated that if all the books were sold for \$7 each, the charity would make about \$450. Is Hanna's estimate good? Why?

3. The giant armadillo is about 148 cm long. If 6 armadillos lined up from head to tail, how long would the line be? Estimate, then do the multiplication in the grid to check your answer.

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4. Multiply. Do the rough work in the grid.

a) 45×26

$45 \times 6 =$ _____

$45 \times 20 =$ _____

so $45 \times 26 =$ _____

| | | | | | | | | | |
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b) 79×35

$79 \times 5 =$ _____

$79 \times 30 =$ _____

so $79 \times 35 =$ _____

| | | | | | | | | | |
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5. Multiply.

a)

| | | | |
|-------|---|---|--|
| | | | |
| | 5 | 7 | |
| x | 3 | 6 | |
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b)

| | | | |
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| | 2 | 9 | |
| x | 4 | 6 | |
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c)

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| | 8 | 3 | |
| x | 7 | 8 | |
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Unit 3: Number Sense

Answer Key

Quiz (Lessons 20, 21) — ON

1. a) $400 \times 200 = 80\,000$
b) $900 \times 400 = 360\,000$
2. $82 \times 7 \approx 80 \times 7 = 560$
Her estimate is not good because it is much lower than \$560.
3. Teacher to check estimate.

| | | | |
|---|---|---|---|
| | 2 | 4 | |
| | 1 | 4 | 8 |
| x | | | 6 |
| | 8 | 8 | 8 |

4. a)

| | | |
|---|---|-----|
| | 3 | |
| | 4 | 5 |
| x | | 6 |
| | 2 | 7 0 |

| | | | |
|---|---|---|---|
| | | 1 | |
| | | 4 | 5 |
| x | | 2 | 0 |
| | 9 | 0 | 0 |

270
900
1170

- b)

| | | |
|---|---|-----|
| | 4 | |
| | 7 | 9 |
| x | | 5 |
| | 3 | 9 5 |

| | | | |
|---|---|---|-----|
| | | 2 | |
| | | 7 | 9 |
| x | | 3 | 0 |
| | 2 | 3 | 7 0 |

395
2370
2765

5. a)

| | | | |
|---|---|---|-----|
| | 2 | 4 | |
| | | 5 | 7 |
| x | | 3 | 6 |
| | 3 | 4 | 2 |
| | 1 | 7 | 1 0 |
| | 2 | 0 | 5 2 |

- b)

| | | | |
|---|---|---|-----|
| | 3 | 5 | |
| | | 2 | 9 |
| x | | 4 | 6 |
| | 1 | 7 | 4 |
| | 1 | 1 | 6 0 |
| | 1 | 3 | 3 4 |

- c)

| | | | |
|---|---|---|-----|
| | 2 | 2 | |
| | | 8 | 3 |
| x | | 7 | 8 |
| | 6 | 6 | 4 |
| | 5 | 8 | 1 0 |
| | 6 | 4 | 7 4 |

Unit 3: Number Sense

Test (Lessons 15–18, 20, 21) — ON

Name: _____

Date: _____

1. Multiply the one-digit numbers to find the second product.

a) $7 \times 6 =$ _____

BONUS ► $5 \times 8 =$ _____

$70 \times 600 =$ _____

$5000 \times 800 =$ _____

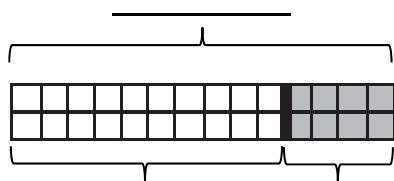
2. Explain how you knew how many zeros to put in your answer in Question 1, part a).

3. Use doubling to find 16 times the number.

a) 4

BONUS ► 40

4. Write a product for the whole array and for each part of the array. Then write an equation.



5. A paving company is going to pave a driveway. The dimensions must be 9 m by 43 m. Write the dimensions as a product in expanded form and solve.

Unit 3: Number Sense

continued

Test (Lessons 15–18, 20, 21) — ON

6. Multiply. Regroup when you need to.

a)

| | | |
|-------|---|---|
| | | |
| | 5 | 3 |
| × | | 7 |
| <hr/> | | |
| | | |

b)

| | | |
|-------|---|---|
| | | |
| | 7 | 4 |
| × | | 6 |
| <hr/> | | |
| | | |

c)

| | | |
|-------|---|---|
| | | |
| | 8 | 9 |
| × | | 5 |
| <hr/> | | |
| | | |

7. A hexagon is painted on the ground in a schoolyard. All six sides are 13 m long. Multiply to determine the total length of the sides. Use the grid.

| | | | | | | | | | |
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8. Lela and Tasha each spend \$7 a day to buy lunch at school. If they both bought lunch on 58 days last year, how much did each girl spend and how much did they spend altogether? Estimate, then do the multiplication in the grid to check your answer.

| | | | | | | | | | |
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| | | | | | | | | | |

9. Multiply.

a)

| | | | |
|-------|--|---|---|
| | | | |
| | | 4 | 2 |
| × | | 6 | 7 |
| <hr/> | | | |
| | | | |
| | | | |
| <hr/> | | | |
| | | | |

b)

| | | | |
|-------|--|---|---|
| | | | |
| | | 8 | 3 |
| × | | 7 | 5 |
| <hr/> | | | |
| | | | |
| | | | |
| <hr/> | | | |
| | | | |

c)

| | | | |
|-------|--|---|---|
| | | | |
| | | 9 | 8 |
| × | | 9 | 8 |
| <hr/> | | | |
| | | | |
| | | | |
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Unit 3: Number Sense

Answer Key

Test (Lessons 15–18, 20, 21) — ON

1. a) 42
42 000

BONUS

40
4 000 000

2. There should be as many zeros in the answer as there are in the two numbers being multiplied.

3. a) $4 \times 2 = 8$
 $8 \times 2 = 16$
 $16 \times 2 = 32$
 $32 \times 2 = 64$

BONUS

$40 \times 2 = 80$
 $80 \times 2 = 160$
 $160 \times 2 = 320$
 $320 \times 2 = 640$

4. 2×14
 $2 \times 10, 2 \times 4$
 $2 \times 14 = (2 \times 10) + (2 \times 4)$
5. $9 \times 43 = (9 \times 40) + (9 \times 3)$
 $= 360 + 27 = 387$

6. a)

| | | |
|---|---|---|
| | 2 | |
| | 5 | 3 |
| × | | 7 |
| 3 | 7 | 1 |

- b)

| | | |
|---|---|---|
| | 2 | |
| | 7 | 4 |
| × | | 6 |
| 4 | 4 | 4 |

- c)

| | | |
|---|---|---|
| | 4 | |
| | 8 | 9 |
| × | | 5 |
| 4 | 4 | 5 |

7.

| | | |
|---|---|---|
| | 1 | |
| | 1 | 3 |
| × | | 6 |
| | 7 | 8 |

The total length of the sides is 78 m.

8. Estimate:
 $58 \times 7 \approx 60 \times 7 = 420$
Each girl spent \$420.
 $420 + 420 = 840$
They spent \$840 altogether.

Calculation:

| | | |
|---|---|---|
| | 5 | |
| | 5 | 8 |
| × | | 7 |
| 4 | 0 | 6 |

Each girl spent \$406.
 $406 + 406 = 812$
They spent \$812 altogether.

9. a)

| | | | |
|---|---|---|---|
| | 1 | 1 | |
| | | 4 | 2 |
| × | | 6 | 7 |
| | 2 | 9 | 4 |
| 2 | 5 | 2 | 0 |
| 2 | 8 | 1 | 4 |

- b)

| | | | |
|---|---|---|---|
| | 2 | 1 | |
| | | 8 | 3 |
| × | | 7 | 5 |
| | 4 | 1 | 5 |
| 5 | 8 | 1 | 0 |
| 6 | 2 | 2 | 5 |

- c)

| | | | |
|---|---|---|---|
| | 7 | 6 | |
| | | 9 | 8 |
| × | | 9 | 8 |
| | 7 | 8 | 4 |
| 8 | 8 | 2 | 0 |
| 9 | 6 | 0 | 4 |