

Name: _____

PLACE VALUE & SUBTRACTION

Algorithm Lab • Tens, Ones, and Exchange

Objective: *Subtract by place value, exchanging units without changing the quantity.*

DO THIS Show each number by place value. Exchange a unit when you need to, then subtract.

EXCHANGE One ten is ten ones — the quantity does not change.

EXAMPLE

T	O
5	2

1 ten becomes 10 ones

$$\begin{array}{r} 52 \\ - 28 \\ \hline 24 \end{array}$$

52 = 40 + 12.

Exchange one ten for ten ones, then subtract.

BUILD & SUBTRACT Show the number, then subtract by place value.

1

T	O
4	8

$$\begin{array}{r} 48 \\ - 31 \\ \hline \end{array}$$

2

T	O
4	9

$$\begin{array}{r} 49 \\ - 43 \\ \hline \end{array}$$

3

T	O
1	8

$$\begin{array}{r} 18 \\ - 15 \\ \hline \end{array}$$

4

T	O
4	4

$$\begin{array}{r} 44 \\ - 20 \\ \hline \end{array}$$

INDEPENDENT PRACTICE Subtract. Keep your columns aligned.

1

$$\begin{array}{r} 92 \\ - 65 \\ \hline \end{array}$$

2

$$\begin{array}{r} 93 \\ - 70 \\ \hline \end{array}$$

3

$$\begin{array}{r} 40 \\ - 13 \\ \hline \end{array}$$

4

$$\begin{array}{r} 92 \\ - 38 \\ \hline \end{array}$$

5

$$\begin{array}{r} 15 \\ - 14 \\ \hline \end{array}$$

6

$$\begin{array}{r} 33 \\ - 24 \\ \hline \end{array}$$

PROVE IT Check with addition.

1 $15 + \square = 22$

2 $21 + \square = 23$

3 $29 + \square = 69$

To subtract I: ☐ exchanged a unit ☐ kept columns aligned ☐ checked with addition

TEACHER EDITION

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1	8

$$\begin{array}{r} 18 \\ - 15 \\ \hline 3 \end{array}$$

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T	O
4	4

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INDEPENDENT PRACTICE Subtract. Keep your columns aligned.

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$$\begin{array}{r} 92 \\ - 65 \\ \hline 27 \end{array}$$

2

$$\begin{array}{r} 93 \\ - 70 \\ \hline 23 \end{array}$$

3

$$\begin{array}{r} 40 \\ - 13 \\ \hline 27 \end{array}$$

4

$$\begin{array}{r} 92 \\ - 38 \\ \hline 54 \end{array}$$

5

$$\begin{array}{r} 15 \\ - 14 \\ \hline 1 \end{array}$$

6

$$\begin{array}{r} 33 \\ - 24 \\ \hline 9 \end{array}$$

PROVE IT Check with addition.

1 $15 + \underline{7} = 22$

2 $21 + \underline{2} = 23$

3 $29 + \underline{40} = 69$

TEACHER NOTES Answer key & guidance

Answers: aligned vertical differences

Common error: Subtracting the smaller digit from the larger in each column

Strategy: Rename one unit as ten of the next-smaller unit

Prompt: "Do you have enough ones, or must you exchange a ten?"

To subtract I: ☐ exchanged a unit ☐ kept columns aligned ☐ checked with addition