

Grade 5 Math Review Workbook

5 lessons · printable · answer key at the back



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Multiplying Decimals

WORKED EXAMPLE

$$7.1 \times 11 = \underline{78.1}$$

1. Multiply and divide decimals

Multiply the decimals.

- | | | |
|------------------------------|-------------------------------|-------------------------------|
| 1 $8.9 \times 3 =$ _____ | 2 $5.1 \times 3.6 =$ _____ | 3 $1.91 \times 8.1 =$ _____ |
| 4 $11.0 \times 4 =$ _____ | 5 $1.3 \times 0.71 =$ _____ | 6 $9.03 \times 7 =$ _____ |
| 7 $7.8 \times 6 =$ _____ | 8 $4.56 \times 0.2 =$ _____ | 9 $4.94 \times 4.70 =$ _____ |
| 10 $11.8 \times 11 =$ _____ | 11 $7.18 \times 6 =$ _____ | 12 $5.5 \times 1.1 =$ _____ |
| 13 $1.4 \times 10 =$ _____ | 14 $1.1 \times 5.38 =$ _____ | 15 $2.9 \times 0.12 =$ _____ |
| 16 $7.5 \times 9 =$ _____ | 17 $7.2 \times 2.13 =$ _____ | 18 $0.6 \times 8.1 =$ _____ |
| 19 $0.67 \times 6 =$ _____ | 20 $1.90 \times 4.1 =$ _____ | 21 $0.16 \times 7.0 =$ _____ |
| 22 $5.04 \times 7.8 =$ _____ | 23 $0.60 \times 3 =$ _____ | 24 $4.89 \times 1.5 =$ _____ |
| 25 $9.1 \times 6 =$ _____ | 26 $1.7 \times 11 =$ _____ | 27 $5.41 \times 4 =$ _____ |
| 28 $2.16 \times 5 =$ _____ | 29 $0.3 \times 10 =$ _____ | 30 $3.31 \times 2.8 =$ _____ |
| 31 $5.5 \times 7 =$ _____ | 32 $7.30 \times 7.08 =$ _____ | 33 $6.9 \times 0.25 =$ _____ |
| 34 $8.51 \times 2 =$ _____ | 35 $1.95 \times 12 =$ _____ | 36 $0.41 \times 3 =$ _____ |
| 37 $5.3 \times 12 =$ _____ | 38 $6.82 \times 3 =$ _____ | 39 $11.0 \times 5 =$ _____ |
| 40 $0.37 \times 5.6 =$ _____ | 41 $3.9 \times 3 =$ _____ | 42 $5.57 \times 1.47 =$ _____ |
| 43 $3.26 \times 5 =$ _____ | 44 $3.56 \times 5 =$ _____ | |

Long Division with Remainders

WORKED EXAMPLE

$$\begin{array}{r} 40 \\ 26 \overline{)1064} \\ \underline{104} \\ 24 \end{array}$$

2. Long division with remainders

Divide. Give the quotient and the remainder.

$$\begin{array}{l} 1 \quad \quad \quad \quad \quad \quad \quad 2 \quad \quad \quad \quad \quad \quad \quad 3 \quad \quad \quad \quad \quad \quad \quad 4 \quad \quad \quad \quad \quad \quad \quad 5 \quad \quad \quad \quad \quad \quad \quad \\ 91 \overline{)3319} \quad 65 \overline{)5639} \quad 98 \overline{)1196} \quad 89 \overline{)2325} \quad 66 \overline{)9554} \end{array}$$

$$\begin{array}{l} 6 \quad \quad \quad \quad \quad \quad \quad 7 \quad \quad \quad \quad \quad \quad \quad 8 \quad \quad \quad \quad \quad \quad \quad \\ 38 \overline{)2835} \quad 83 \overline{)6795} \quad 91 \overline{)1835} \end{array}$$

Comparing Fractions

WORKED EXAMPLE

$$\frac{3}{7} < \frac{4}{8}$$

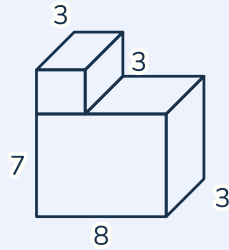
3. Comparing fractions

Write $>$, $=$, or $<$ between each pair of fractions.

- | | | | | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| 1 $\frac{1}{6} \bigcirc \frac{3}{4}$ | 2 $\frac{1}{5} \bigcirc \frac{3}{6}$ | 3 $\frac{2}{4} \bigcirc \frac{1}{4}$ | 4 $\frac{3}{5} \bigcirc \frac{2}{5}$ | 5 $\frac{1}{2} \bigcirc \frac{2}{5}$ |
| 6 $\frac{4}{5} \bigcirc \frac{1}{2}$ | 7 $\frac{2}{8} \bigcirc \frac{1}{7}$ | 8 $\frac{2}{5} \bigcirc \frac{4}{8}$ | 9 $\frac{3}{5} \bigcirc \frac{3}{6}$ | 10 $\frac{2}{6} \bigcirc \frac{1}{4}$ |
| 11 $\frac{3}{5} \bigcirc \frac{3}{5}$ | 12 $\frac{1}{6} \bigcirc \frac{4}{7}$ | 13 $\frac{6}{8} \bigcirc \frac{1}{2}$ | 14 $\frac{1}{5} \bigcirc \frac{2}{8}$ | 15 $\frac{4}{5} \bigcirc \frac{2}{5}$ |
| 16 $\frac{1}{4} \bigcirc \frac{2}{8}$ | 17 $\frac{2}{7} \bigcirc \frac{2}{7}$ | 18 $\frac{2}{6} \bigcirc \frac{2}{3}$ | 19 $\frac{3}{4} \bigcirc \frac{6}{7}$ | 20 $\frac{3}{8} \bigcirc \frac{2}{4}$ |
| 21 $\frac{2}{4} \bigcirc \frac{2}{3}$ | 22 $\frac{2}{5} \bigcirc \frac{2}{6}$ | 23 $\frac{1}{2} \bigcirc \frac{7}{8}$ | 24 $\frac{4}{6} \bigcirc \frac{7}{8}$ | 25 $\frac{5}{7} \bigcirc \frac{2}{5}$ |
| 26 $\frac{6}{7} \bigcirc \frac{5}{8}$ | 27 $\frac{5}{8} \bigcirc \frac{1}{5}$ | 28 $\frac{5}{6} \bigcirc \frac{6}{7}$ | 29 $\frac{3}{4} \bigcirc \frac{5}{8}$ | 30 $\frac{2}{3} \bigcirc \frac{2}{6}$ |
| 31 $\frac{3}{4} \bigcirc \frac{4}{5}$ | 32 $\frac{3}{5} \bigcirc \frac{7}{8}$ | 33 $\frac{7}{8} \bigcirc \frac{4}{7}$ | 34 $\frac{2}{7} \bigcirc \frac{1}{7}$ | 35 $\frac{5}{8} \bigcirc \frac{4}{8}$ |
| 36 $\frac{1}{8} \bigcirc \frac{2}{8}$ | 37 $\frac{1}{3} \bigcirc \frac{6}{8}$ | 38 $\frac{2}{4} \bigcirc \frac{4}{6}$ | 39 $\frac{7}{8} \bigcirc \frac{3}{8}$ | 40 $\frac{1}{3} \bigcirc \frac{2}{8}$ |
| 41 $\frac{3}{4} \bigcirc \frac{2}{5}$ | 42 $\frac{3}{7} \bigcirc \frac{2}{4}$ | 43 $\frac{5}{6} \bigcirc \frac{4}{7}$ | 44 $\frac{6}{7} \bigcirc \frac{1}{6}$ | 45 $\frac{6}{8} \bigcirc \frac{2}{6}$ |
| 46 $\frac{4}{8} \bigcirc \frac{3}{7}$ | 47 $\frac{2}{4} \bigcirc \frac{4}{5}$ | 48 $\frac{3}{7} \bigcirc \frac{1}{6}$ | 49 $\frac{3}{4} \bigcirc \frac{4}{7}$ | 50 $\frac{1}{6} \bigcirc \frac{2}{7}$ |

Volume of Prisms

WORKED EXAMPLE

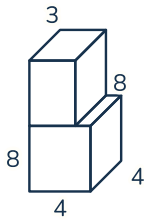


195 cm³

4. Volume of a rectangular prism

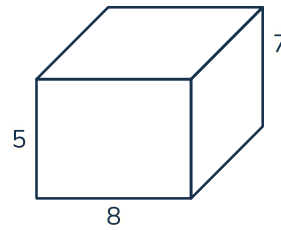
Find the volume of each box. All lengths are in centimeters.

1



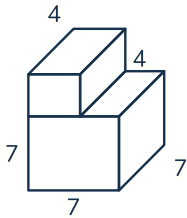
_____ cm³

2



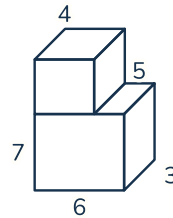
_____ cm³

3



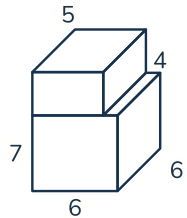
_____ cm³

4



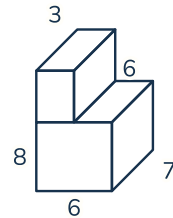
_____ cm³

5



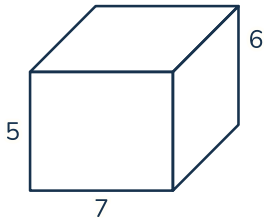
_____ cm³

6



_____ cm³

7



_____ cm³

Two Patterns Together

WORKED EXAMPLE

ADD 5

5	10	15	20
---	----	----	----

ADD 10

10	20	30	40
----	----	----	----

5. Two rules, two patterns

Follow both rules and fill in the missing number.

1

ADD 4	4		12	16
ADD 16	16	32	48	64

3

ADD 4	4	8		16
ADD 20	20	40	60	80

5

ADD 4	4	8	12	16
ADD 20	20	40		80

7

ADD 5	5	10	15	20
ADD 30	30	60		120

9

ADD 6	6	12	18	
ADD 18	18	36	54	72

2

ADD 4	4		12	16
ADD 8	8	16	24	32

4

ADD 3	3	6	9	12
ADD 12	12	24		48

6

ADD 6	6	12		24
ADD 18	18	36	54	72

8

ADD 3	3	6		12
ADD 9	9	18	27	36

10

ADD 3	3	6	9	12
ADD 15	15	30	45	

Answer Key (1 of 2)

Multiplying Decimals

Multiply and divide decimals

1. $8.9 \times 3 = 26.7$
2. $5.1 \times 3.6 = 18.36$
3. $1.91 \times 8.1 = 15.471$
4. $11.0 \times 4 = 44.0$
5. $1.3 \times 0.71 = 0.923$
6. $9.03 \times 7 = 63.21$
7. $7.8 \times 6 = 46.8$
8. $4.56 \times 0.2 = 0.912$
9. $4.94 \times 4.70 = 23.2180$
10. $11.8 \times 11 = 129.8$
11. $7.18 \times 6 = 43.08$
12. $5.5 \times 1.1 = 6.05$
13. $1.4 \times 10 = 14.0$
14. $1.1 \times 5.38 = 5.918$
15. $2.9 \times 0.12 = 0.348$
16. $7.5 \times 9 = 67.5$
17. $7.2 \times 2.13 = 15.336$
18. $0.6 \times 8.1 = 4.86$
19. $0.67 \times 6 = 4.02$
20. $1.90 \times 4.1 = 7.790$
21. $0.16 \times 7.0 = 1.120$
22. $5.04 \times 7.8 = 39.312$
23. $0.60 \times 3 = 1.80$
24. $4.89 \times 1.5 = 7.335$
25. $9.1 \times 6 = 54.6$
26. $1.7 \times 11 = 18.7$
27. $5.41 \times 4 = 21.64$
28. $2.16 \times 5 = 10.80$
29. $0.3 \times 10 = 3.0$
30. $3.31 \times 2.8 = 9.268$
31. $5.5 \times 7 = 38.5$
32. $7.30 \times 7.08 = 51.6840$
33. $6.9 \times 0.25 = 1.725$
34. $8.51 \times 2 = 17.02$
35. $1.95 \times 12 = 23.40$
36. $0.41 \times 3 = 1.23$
37. $5.3 \times 12 = 63.6$
38. $6.82 \times 3 = 20.46$
39. $11.0 \times 5 = 55.0$
40. $0.37 \times 5.6 = 2.072$
41. $3.9 \times 3 = 11.7$
42. $5.57 \times 1.47 = 8.1879$
43. $3.26 \times 5 = 16.30$
44. $3.56 \times 5 = 17.80$

Long Division with Remainders

Long division with remainders

1. $3319 \div 91 = 36 \text{ R } 43$
2. $5639 \div 65 = 86 \text{ R } 49$
3. $1196 \div 98 = 12 \text{ R } 20$
4. $2325 \div 89 = 26 \text{ R } 11$
5. $9554 \div 66 = 144 \text{ R } 50$
6. $2835 \div 38 = 74 \text{ R } 23$
7. $6795 \div 83 = 81 \text{ R } 72$
8. $1835 \div 91 = 20 \text{ R } 15$

Comparing Fractions

Comparing fractions

1. $1/6 < 3/4$
2. $1/5 < 3/6$
3. $2/4 > 1/4$
4. $3/5 > 2/5$
5. $1/2 > 2/5$
6. $4/5 > 1/2$
7. $2/8 > 1/7$
8. $2/5 < 4/8$
9. $3/5 > 3/6$
10. $2/6 > 1/4$
11. $3/5 = 3/5$
12. $1/6 < 4/7$
13. $6/8 > 1/2$
14. $1/5 < 2/8$
15. $4/5 > 2/5$
16. $1/4 = 2/8$
17. $2/7 = 2/7$
18. $2/6 < 2/3$
19. $3/4 < 6/7$
20. $3/8 < 2/4$
21. $2/4 < 2/3$
22. $2/5 > 2/6$
23. $1/2 < 7/8$
24. $4/6 < 7/8$
25. $5/7 > 2/5$
26. $6/7 > 5/8$
27. $5/8 > 1/5$
28. $5/6 < 6/7$
29. $3/4 > 5/8$
30. $2/3 > 2/6$
31. $3/4 < 4/5$
32. $3/5 < 7/8$
33. $7/8 > 4/7$
34. $2/7 > 1/7$

Answer Key (2 of 2)

Comparing Fractions (continued)

Comparing fractions (continued)

35. $\frac{5}{8} > \frac{4}{8}$
36. $\frac{1}{8} < \frac{2}{8}$
37. $\frac{1}{3} < \frac{6}{8}$
38. $\frac{2}{4} < \frac{4}{6}$
39. $\frac{7}{8} > \frac{3}{8}$
40. $\frac{1}{3} > \frac{2}{8}$
41. $\frac{3}{4} > \frac{2}{5}$
42. $\frac{3}{7} < \frac{2}{4}$
43. $\frac{5}{6} > \frac{4}{7}$
44. $\frac{6}{7} > \frac{1}{6}$
45. $\frac{6}{8} > \frac{2}{6}$
46. $\frac{4}{8} > \frac{3}{7}$
47. $\frac{2}{4} < \frac{4}{5}$
48. $\frac{3}{7} > \frac{1}{6}$
49. $\frac{3}{4} > \frac{4}{7}$
50. $\frac{1}{6} < \frac{2}{7}$

Volume of Prisms

Volume of a rectangular prism

1. $4 \times 4 \times 8 + 3 \times 4 \times 8$: 224 cm³
2. $8 \times 7 \times 5$: 280 cm³
3. $7 \times 7 \times 7 + 4 \times 7 \times 4$: 455 cm³
4. $6 \times 3 \times 7 + 4 \times 3 \times 5$: 186 cm³
5. $6 \times 6 \times 7 + 5 \times 6 \times 4$: 372 cm³
6. $6 \times 7 \times 8 + 3 \times 7 \times 6$: 462 cm³
7. $7 \times 6 \times 5$: 210 cm³

Two Patterns Together

Two rules, two patterns

1. Add 4 and add 16 → top row, term 2 = 8
2. Add 4 and add 8 → top row, term 2 = 8
3. Add 4 and add 20 → top row, term 3 = 12
4. Add 3 and add 12 → bottom row, term 3 = 36
5. Add 4 and add 20 → bottom row, term 3 = 60
6. Add 6 and add 18 → top row, term 3 = 18
7. Add 5 and add 30 → bottom row, term 3 = 90
8. Add 3 and add 9 → top row, term 3 = 9
9. Add 6 and add 18 → top row, term 4 = 24
10. Add 3 and add 15 → bottom row, term 4 = 60

Solutions (1 of 5)

Multiplying Decimals

Multiply and divide decimals

1. $8.9 \times 3 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 8.9 \times 3 \\ 89 \times 3 = 267 \\ 8.9 \rightarrow 1 \text{ figure} \\ 3 \rightarrow 0 \text{ figures} \\ 267 \quad 1 \text{ from the right} \\ 8.9 \times 3 = 26.7 \end{array}$$

Do NOT line the points up — that is for adding. For a multiply, take the points off and do it as whole numbers first.

$89 \times 3 = 267$. Ordinary times-tables, nothing decimal about it.

Now count the figures after the points in the QUESTION: 1 figure in 8.9 and 0 figures in 3 — 1 altogether.

So the answer gets 1 too. Count 1 in from the right of 267 and put the point there: 26.7.

2. $5.1 \times 3.6 = \underline{\hspace{2cm}}$

$$\begin{array}{r} 5.1 \times 3.6 \\ 51 \times 36 = 1836 \\ 5.1 \rightarrow 1 \text{ figure} \\ 3.6 \rightarrow 1 \text{ figure} \\ 1836 \quad 2 \text{ from the right} \\ 5.1 \times 3.6 = 18.36 \end{array}$$

Do NOT line the points up — that is for adding. For a multiply, take the points off and do it as whole numbers first.

$51 \times 36 = 1836$. Ordinary times-tables, nothing decimal about it.

Now count the figures after the points in the QUESTION: 1 figure in 5.1 and 1 figure in 3.6 — 2 altogether.

So the answer gets 2 too. Count 2 in from the right of 1836 and put the point there: 18.36.

Long Division with Remainders

Long division with remainders

1.

$$\begin{array}{r} 36 \\ 91 \overline{) 3319} \\ \underline{273} \\ 589 \\ \underline{546} \\ 43 \end{array}$$

3319 shared into groups of 91. Long division starts at the LEFT — the other way round from adding.

Start at the left. How many 91s fit into 331? 3 of them — write the 3 on top. $3 \times 91 = 273$, and $331 - 273$ leaves 58. Bring down the 9, which makes 589.

How many 91s fit into 589? 6 — write it on top. $6 \times 91 = 546$, and $589 - 546$ leaves 43.

Nothing is left to bring down, and 43 is too small to divide again — so that is the remainder. $3319 \div 91 = 36$ remainder 43.

Solutions (2 of 5)

Long Division with Remainders (continued)

Long division with remainders (continued)

2.

$$\begin{array}{r} 86 \\ 65 \overline{) 5639} \\ \underline{520} \\ 439 \\ \underline{390} \\ 49 \end{array}$$

5639 shared into groups of 65. Long division starts at the LEFT — the other way round from adding.

Start at the left. How many 65s fit into 563? 8 of them — write the 8 on top. $8 \times 65 = 520$, and $563 - 520$ leaves 43. Bring down the 9, which makes 439.

How many 65s fit into 439? 6 — write it on top. $6 \times 65 = 390$, and $439 - 390$ leaves 49.

Nothing is left to bring down, and 49 is too small to divide again — so that is the remainder. $5639 \div 65 = 86$ remainder 49.

Comparing Fractions

Comparing fractions

1. $\frac{1}{6} \bigcirc \frac{3}{4}$

$$\begin{array}{rcl} \frac{1}{6} & ? & \frac{3}{4} \\ \frac{1}{6} & = & \frac{2}{12} \\ \frac{3}{4} & = & \frac{9}{12} \\ \frac{2}{12} & < & \frac{9}{12} \\ \frac{1}{6} & < & \frac{3}{4} \end{array}$$

Sixths and quarters are different SIZES of piece, so the two top numbers cannot be compared as they stand. A bigger number on the bottom means a smaller piece — which is the part of this that feels backwards.

Cut both into twelfths: $1/6$ is $2/12$, and $3/4$ is $9/12$. Neither has changed in size — they are just being measured in the same piece now.

Same size of piece, so now it is only counting: 2 against 9. $1/6$ is less than $3/4$: $1/6 < 3/4$.

Solutions (3 of 5)

Comparing Fractions (continued)

Comparing fractions (continued)

2. $\frac{1}{5} \bigcirc \frac{3}{6}$

$$\begin{array}{rcl} \frac{1}{5} & ? & \frac{3}{6} \\ \frac{1}{5} & = & \frac{6}{30} \\ \frac{3}{6} & = & \frac{15}{30} \\ \frac{6}{30} & < & \frac{15}{30} \\ \frac{1}{5} & < & \frac{3}{6} \end{array}$$

Fifths and sixths are different SIZES of piece, so the two top numbers cannot be compared as they stand. A bigger number on the bottom means a smaller piece — which is the part of this that feels backwards.

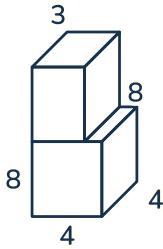
Cut both into 30ths: $\frac{1}{5}$ is $\frac{6}{30}$, and $\frac{3}{6}$ is $\frac{15}{30}$. Neither has changed in size — they are just being measured in the same piece now.

Same size of piece, so now it is only counting: 6 against 15. $\frac{1}{5}$ is less than $\frac{3}{6}$: $\frac{1}{5} < \frac{3}{6}$.

Volume of Prisms

Volume of a rectangular prism

1.



_____ cm³

filled box: 256

notch: 32

$$256 - 32 = 224 \text{ cubic cm}$$

A block standing on a slab. There is no formula for this shape — the job is to turn it into boxes, which do have one, and there is more than one way.

First way: cut it into the two boxes it already is. The slab underneath is $4 \times 4 \times 8 = 128$, and the block standing on it is $3 \times 4 \times 8 = 96$.

$$128 + 96 = 224 \text{ cubic cm.}$$

Second way: fill the notch in to make one big box. That box is $4 \times 4 \times 16 = 256$, and the notch taken back off is $1 \times 4 \times 8 = 32$.

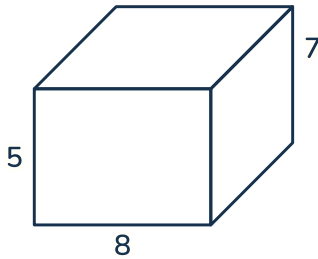
$256 - 32 = 224$ cubic cm. Two methods agreeing is how you know.

Solutions (4 of 5)

Volume of Prisms (continued)

Volume of a rectangular prism (continued)

2.



_____ cm³

$$\text{base: } 8 \times 7 = 56$$

$$56 \times 5 = \mathbf{280 \text{ cubic cm}}$$

Volume is always the same idea: work out the area of the BASE, then see how many of those stack up to the top. Three numbers multiplied is what that comes to, not a rule of its own.

The base is a 8 by 7 rectangle, so its area is 56 square cm — that is one layer.

Stack 5 of those layers: $56 \times 5 = 280$ cubic cm. Cubic, not square — a volume is three lengths multiplied, so the unit is cubed.

Two Patterns Together

Two rules, two patterns

1. **ADD 4**

ADD 16

4		12	16
16	32	48	64

row 1:	4	→	16
row 2:	8	→	32
row 3:	12	→	48
row 4:	16	→	64

Two patterns, and each column counts in its own step — so a gap CAN be filled by counting down its own column. But that is not what a table of pairs is for: the two sides are locked to each other, and the same link works on every row.

Read the link off a row with nothing missing. Row 1: 4 on the left, 16 on the right — that is $\times 4$.

The same link holds all the way down, so use it on the gap: $32 \div 4 = 8$.

Counting down the column gets there too — this is not a trick — but the link is what the two patterns were put next to each other to show.

Solutions (5 of 5)

Two Patterns Together (continued)

Two rules, two patterns (continued)

2. **ADD 4**

ADD 8

4		12	16
8	16	24	32

row 1: 4 → 8
row 2: 8 → 16
row 3: 12 → 24
row 4: 16 → 32

Two patterns, and each column counts in its own step — so a gap CAN be filled by counting down its own column. But that is not what a table of pairs is for: the two sides are locked to each other, and the same link works on every row.

Read the link off a row with nothing missing. Row 1: 4 on the left, 8 on the right — that is $\times 2$.

The same link holds all the way down, so use it on the gap: $16 \div 2 = 8$.

Counting down the column gets there too — this is not a trick — but the link is what the two patterns were put next to each other to show.