Developing the Essential Strategies for Computation

PROFESSIONAL LEARNING HANDOUTS

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What strategies are likely to be extended beyond the number fact range?

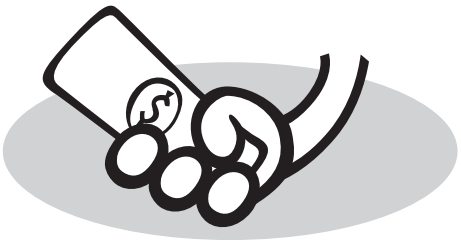
Addition

- Count-on 1, 2 and 0
- Doubles and near doubles
- Bridge to ten

Multiplication

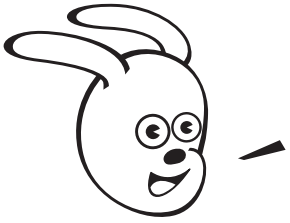
- Use tens (5s)
- Make generalizations (1s and 0s)
- Use Doubles (2s, 4s and 8s)
- Build up/down (9s and 6s)

Gemma had $5. Her mother gave her $1 more. How much money does she have?



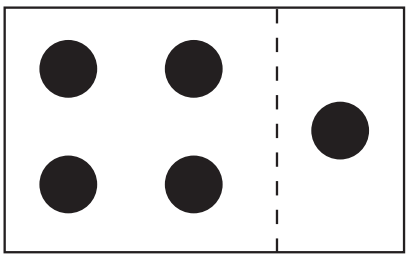
1. Write the number fact.

5 _____ + _____ = _____



How did you figure it out in your head?

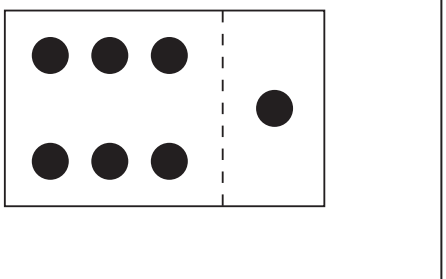
2. Look at this count-on card. Complete the number fact.



4 _____ + 1 _____ = _____

3. Write a number fact for each of these. Write the turnaround fact.

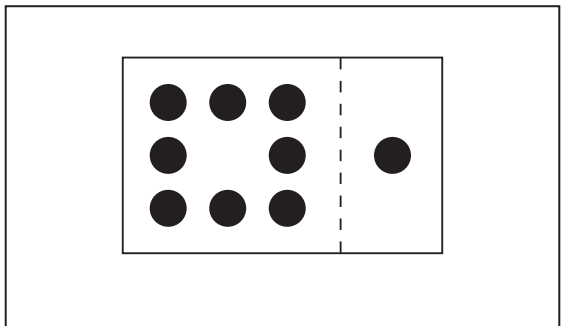
a.



_____ + _____ = _____

_____ + _____ = _____

b.

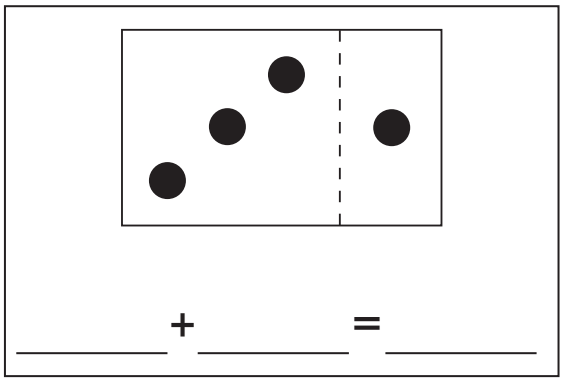


_____ + _____ = _____

_____ + _____ = _____

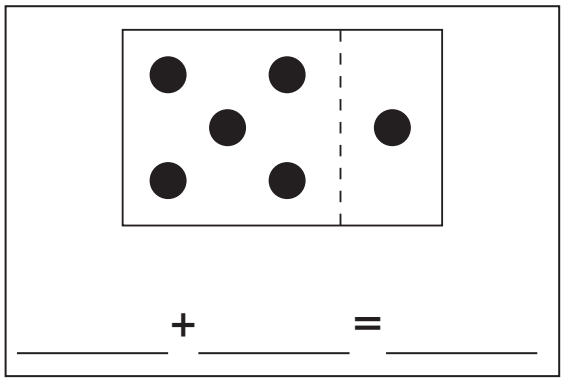
1. Write a number fact to show each total.

a.



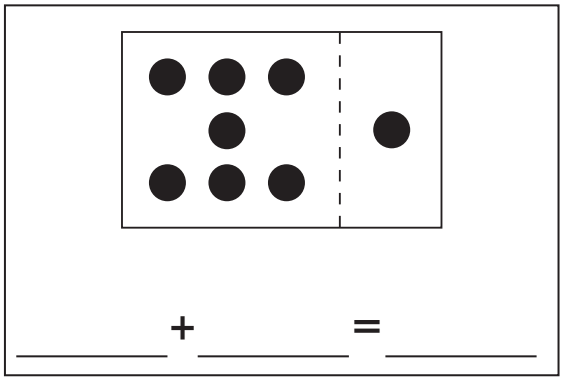
_____ + _____ = _____

b.



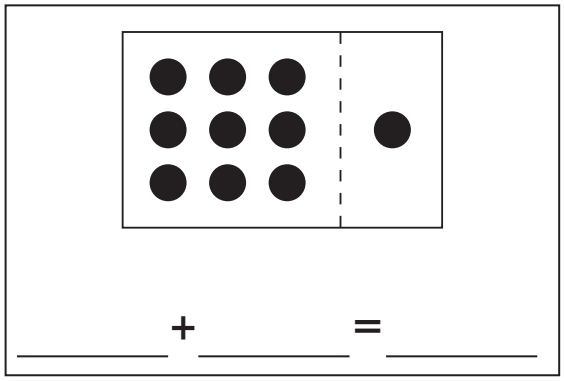
_____ + _____ = _____

c.



_____ + _____ = _____

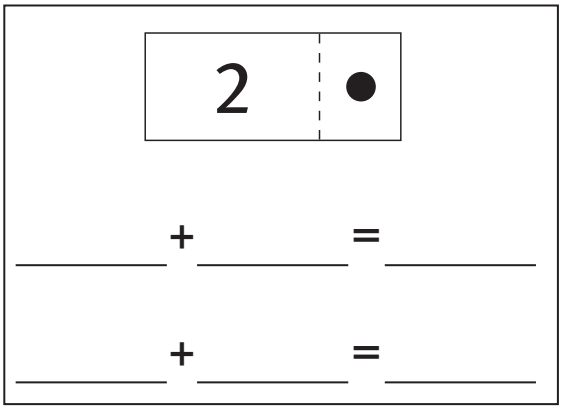
d.



_____ + _____ = _____

2. Write the number fact then write the turnaround fact.

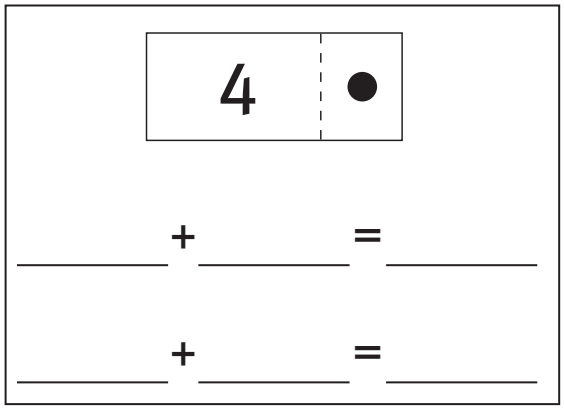
a.



_____ + _____ = _____

_____ + _____ = _____

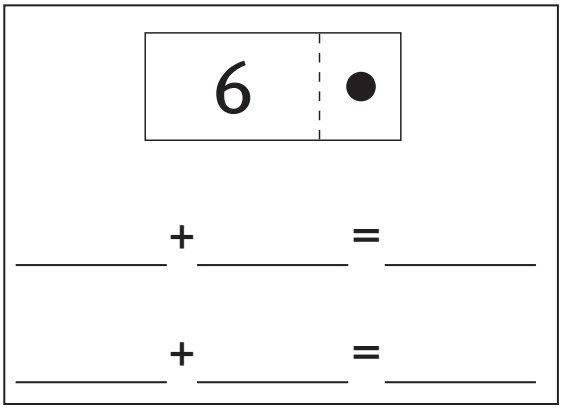
b.



_____ + _____ = _____

_____ + _____ = _____

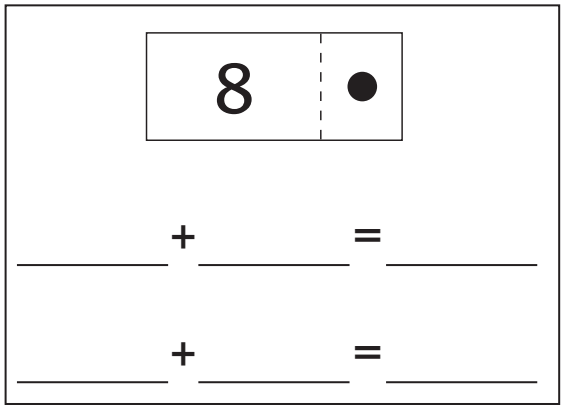
c.



_____ + _____ = _____

_____ + _____ = _____

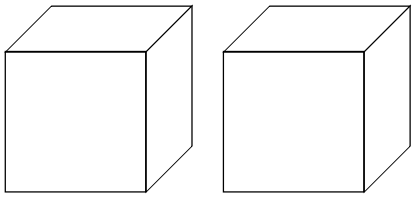
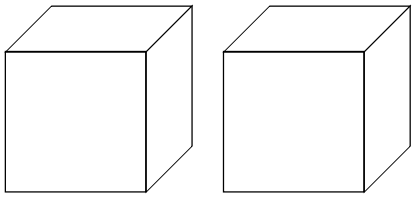
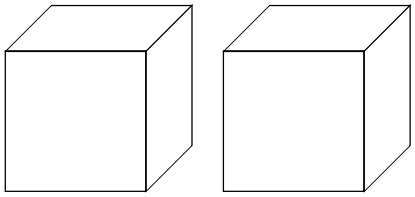
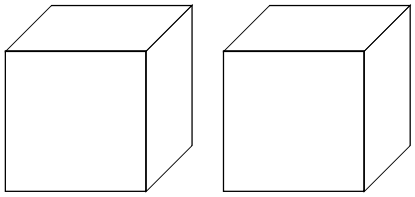
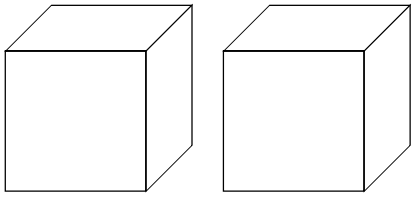
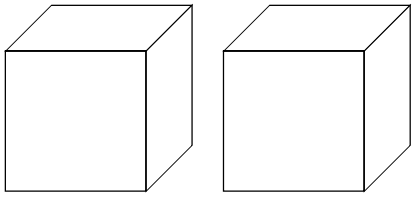
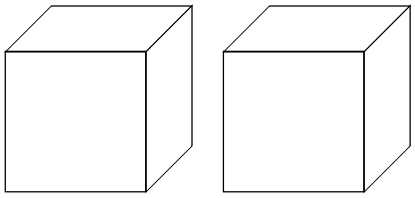
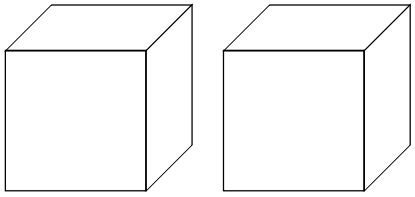
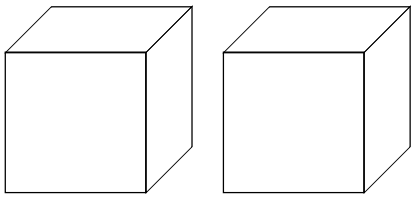
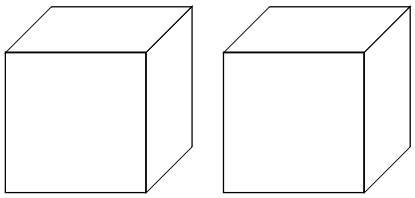
d.



_____ + _____ = _____

_____ + _____ = _____

- Roll your number cubes and count on 1 or 2.
- Find your answer below.
- Write your numbers on the number cubes. Write the number fact.

 ___ + ___ = 11	 ___ + ___ = 6
 ___ + ___ = 5	 ___ + ___ = 8
 ___ + ___ = 9	 ___ + ___ = 7
 ___ + ___ = 8	 ___ + ___ = 6
 ___ + ___ = 7	 ___ + ___ = 10

Cube A: 4, 5, 6, 7, 8, 9

Cube B: 

11	19	13	15
13	9	17	19
17	11	15	9

Cube: 4, 5, 6, 7, 8, 9

- Roll your number cubes and write the fact below the example in the grid that will help you figure out the answer.
- Write the answer to both facts.

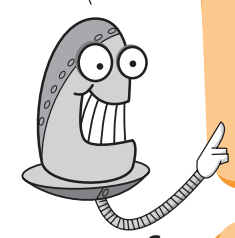
10 + 6 = ___ ___ + ___ = ___	10 + 6 = ___ ___ + ___ = ___
10 + 5 = ___ ___ + ___ = ___	10 + 5 = ___ ___ + ___ = ___
10 + 5 = ___ ___ + ___ = ___	10 + 5 = ___ ___ + ___ = ___
10 + 4 = ___ ___ + ___ = ___	10 + 4 = ___ ___ + ___ = ___
10 + 4 = ___ ___ + ___ = ___	10 + 4 = ___ ___ + ___ = ___
10 + 3 = ___ ___ + ___ = ___	10 + 3 = ___ ___ + ___ = ___
10 + 3 = ___ ___ + ___ = ___	10 + 3 = ___ ___ + ___ = ___
10 + 2 = ___ ___ + ___ = ___	10 + 2 = ___ ___ + ___ = ___
10 + 1 = ___ ___ + ___ = ___	10 + 1 = ___ ___ + ___ = ___

Cube A: 8, 8, 8, 9, 9, 9

Cube B: 3, 4, 5, 5, 6, 7

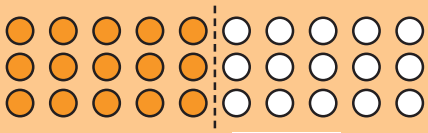
Introducing the Use-Ten Strategy

Write the answer to the tens fact.
Color half the picture, then write a number fact to match what you colored.



a.

3 × 10 = ____



3 × 5 = ____

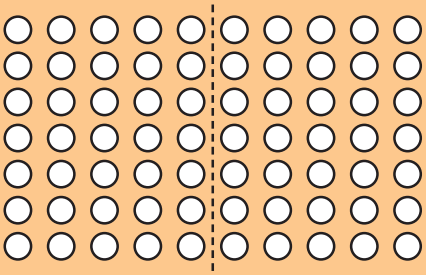
b.

2 × 10 = ____

2 × 5 = ____

c.

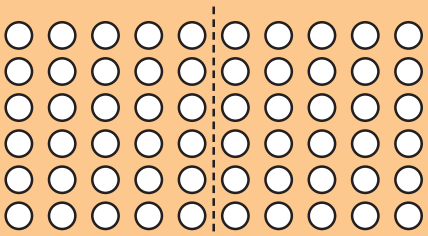
7 × 10 = ____



____ × ____ = ____

d.

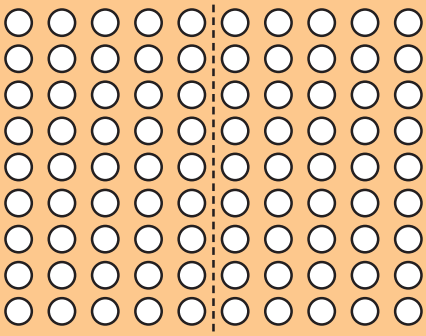
6 × 10 = ____



____ × ____ = ____

e.

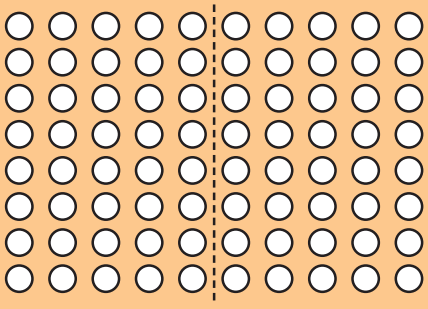
9 × 10 = ____



____ × ____ = ____

f.

8 × 10 = ____



____ × ____ = ____

Write a tens fact you could use to figure out each of these:
a. 4 × 5 = ___ b. 12 × 5 = ___

Nice and Easy

90 × 3	90 × 4	90 × 6	90 × 7	90 × 8	90 × 9
70 × 3	70 × 4	70 × 6	70 × 7	70 × 8	70 × 9
50 × 3	50 × 4	50 × 6	50 × 7	50 × 8	50 × 9
30 × 3	30 × 4	30 × 6	30 × 7	30 × 8	30 × 9

Cube A: 15, 15, 25, 35, 45, 45

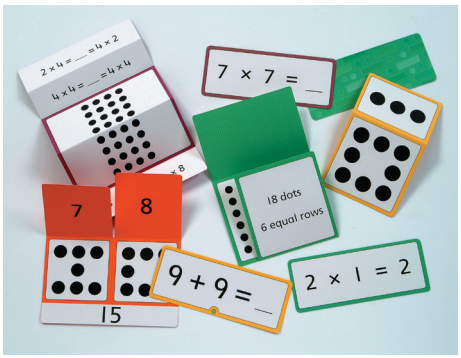
Cube B: 6, 8, 12, 14, 16, 18

Nice and Easy Too!

270	360	540	630	720	810
210	280	420	490	560	630
150	200	300	350	400	450
90	120	180	210	240	270

TITLE		
	The Box of Facts	Visual aids to introduce and practice number facts
	Teacher demonstration cards for developing number fact strategies	$165.00 per kit

Simple visual aids and models help young students see the thinking strategies they can use to learn the essential number facts. Created by Calvin Irons, James Burnett, and Rosemary Irons, each innovative kit contains more than 200 laminated cards that are organized in packs according to the different strategies. Each pack gives step-by-step instructions on how to use the cards.



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☐ *Poor* ☐ *OK* ☐ *Good* ☐ *Very Good*

2. How do you rate the content in terms of its practicality and relevance to you?

☐ *Poor* ☐ *OK* ☐ *Good* ☐ *Very Good*

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4. How do you rate the presenter's ability to motivate and inspire you?

☐ *Poor* ☐ *OK* ☐ *Good* ☐ *Very Good*

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Signature _____