

Smart Subtract™

Dice Game Instructions



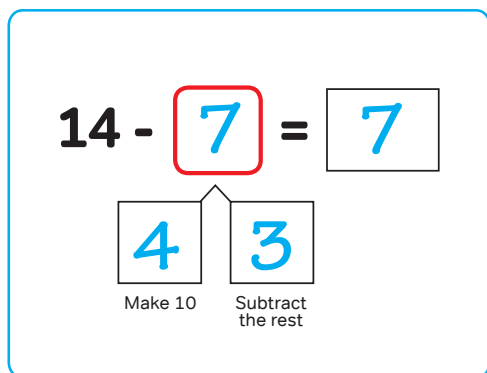
Use **ONLY** wet-erase markers. **Any other marker may permanently damage the sheets.**



Smart Subtract Dice Games combine hands-on fun with the repetition and practice kids need to master their basic subtraction facts. Instead of static worksheets, kids create their own subtraction problems with every roll of the die.

Skill Development

This unique and “die-namic” approach teaches kids to:



1. Subtract single-digit numbers quickly and efficiently
2. Think abstractly by breaking numbers into parts instead of counting
3. Generalize by applying the Make 10 strategy to larger numbers
4. Think algebraically by solving for missing subtrahends

3 Levels of Difficulty.

- **Green** problems are the easiest and focus on mastering differences from 10 (e.g. 10 - 3).
- **Blue** problems build on the green problems and challenge kids to subtract larger numbers using the Make 10 strategy (e.g. 14 - 6).
- **Purple** problems are the most difficult and add a challenging twist. Students must think algebraically and “work backwards” to find missing subtrahends - the number that is subtracted to get the difference.



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Dice Game Examples



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Green Example: Subtracting from 10

1 Roll Die

$$10 - 6 = 4$$

Roll the die and write the number in the red box. For a hint, use the handy rhymes and fingers to get the answer. Since $10 - 6 = 4$, the answer is 4.

Blue Example: The Make 10 Strategy

1 Roll Die

$$14 - 5 = 9$$

4 1

Make 10 Subtract the rest

Thinking smart is nothing more than simply first subtracting [?]

Roll the die and write the number in the red box. To subtract, break this number into parts. First, subtract 4 to make 10, then subtract 1 more to make 9. Altogether, we've subtracted $4 + 1 = 5$, so the answer is $14 - 5 = 9$.

Purple Example: Find the Missing Subtrahend

1 Roll Die

$$13 - 6 = 7$$

3 3

Make 10 Subtract the rest

The answer will be quick to see, if you first subtract a [?]

Roll the die and write the number in the red box. How much do you need to subtract to get this amount? First, subtract 3 to make 10, then subtract 3 more to make 7. Altogether, we've subtracted $3 + 3 = 6$, so the answer is 6.



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Mastering Differences of 10



Roll-em! Roll one die and write the number in the red box. Use the rhymes and hands to help you find the difference.

1

Roll Die

$$10 - \boxed{} = \boxed{}$$

2

Roll Die

$$10 - \boxed{} = \boxed{}$$

3

Roll Die

$$10 - \boxed{} = \boxed{}$$

4

Roll Die

$$10 - \boxed{} = \boxed{}$$

Need a hand?

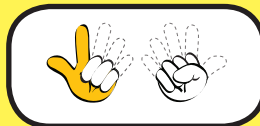
Use these hand-y rhymes to help you find the missing numbers!



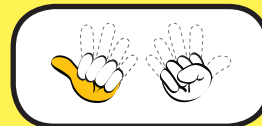
Subtracting 6 and nothing more, will leave you with the number



The answer will be quick to see, subtracting 7 makes just



Subtracting 8 is fast to do. Start with ten and you'll get



Subtracting 9 is fast and fun. The answer is the number



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Mastering Differences of 10



Roll-em! Roll one die and write the number in the **red** box. Use the rhymes and hands to help you find the missing subtrahend.

1

Roll Die

$$10 - \square = \square$$

2

Roll Die

$$10 - \square = \square$$

3

Roll Die

$$10 - \square = \square$$

4

Roll Die

$$10 - \square = \square$$

Need a hand?

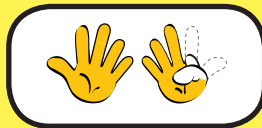
Use these hand-y rhymes to help you find the missing numbers!



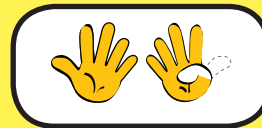
When **6** are left it's not a chore.
The missing number must be ?



With **7** left it's clear to see.
The missing number must be ?



When **8** are left it's fast to do,
The missing number must be ?



When **9** are left it's quickly done.
The missing number must be ?



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The Make 10 Subtraction Strategy

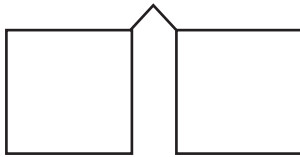


Roll-em! Roll one die and write the number in the **red** box.
Use the **Make 10** subtraction strategy to help you find the difference.

1

Roll Die

$$11 - \boxed{} = \boxed{}$$



Make 10

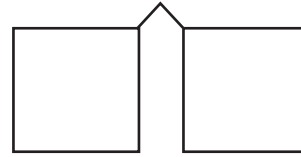
Subtract
the rest

This problem can be quickly done.
Start by first subtracting **?**

2

Roll Die

$$12 - \boxed{} = \boxed{}$$



Make 10

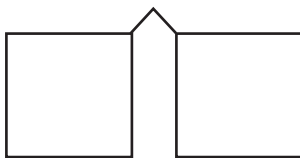
Subtract
the rest

Subtracting will be quick to do.
First just take away a **?**

3

Roll Die

$$13 - \boxed{} = \boxed{}$$



Make 10

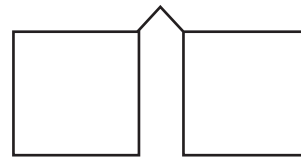
Subtract
the rest

The answer will be quick to see,
if you first subtract a **?**

4

Roll Die

$$14 - \boxed{} = \boxed{}$$



Make 10

Subtract
the rest

Thinking smart is nothing more
than simply first subtracting **?**



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The Make 10s Subtraction Strategy



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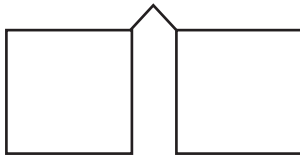


Roll-em! Roll one die and write the number in the **red** box.
Use the **Make 10s** subtraction strategy to help you find the difference.

1

Roll ♦ Die

$$22 - \boxed{} = \boxed{}$$



Make 20

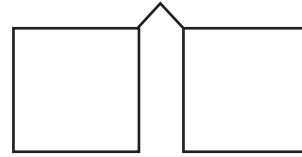
Subtract
the rest

Subtracting will be quick to do.
First just take away a **?**

2

Roll ♦ Die

$$23 - \boxed{} = \boxed{}$$



Make 20

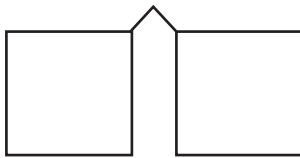
Subtract
the rest

The answer will be quick to see,
if you first subtract a **?**

3

Roll ♦ Die

$$24 - \boxed{} = \boxed{}$$



Make 20

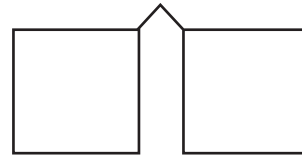
Subtract
the rest

Thinking smart is nothing more
than simply first subtracting **?**

4

Roll ♦ Die

$$25 - \boxed{} = \boxed{}$$



Make 20

Subtract
the rest

The answer's easy to derive,
if you first subtract a **?**



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The Make 10s Subtraction Strategy

5

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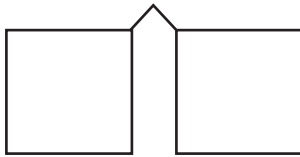


Roll-em! Roll one die and write the number in the **red** box.
Use the **Make 10s** subtraction strategy to help you find the difference.

1

Roll Die

$$31 - \boxed{} = \boxed{}$$



Make 30

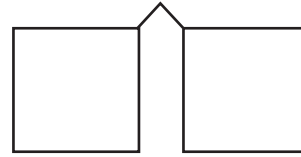
Subtract
the rest

This problem can be quickly done.
Start by first subtracting **[?]**

2

Roll Die

$$42 - \boxed{} = \boxed{}$$



Make 40

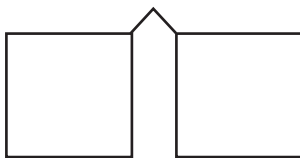
Subtract
the rest

Subtracting will be quick to do.
First just take away a **[?]**

3

Roll Die

$$53 - \boxed{} = \boxed{}$$



Make 50

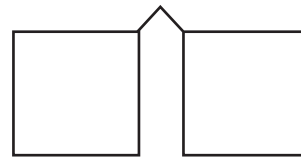
Subtract
the rest

The answer will be quick to see,
if you first subtract a **[?]**

4

Roll Die

$$65 - \boxed{} = \boxed{}$$



Make 60

Subtract
the rest

The answer's easy to derive,
if you first subtract a **[?]**



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The Make 10s Subtraction Strategy

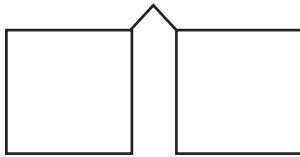


Roll-em! Roll one die and write the number in the **red** box.
Use the **Make 10s** subtraction strategy to help you find the difference.

1

Roll Die

$$61 - \boxed{} = \boxed{}$$



Make 60

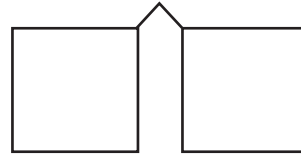
Subtract
the rest

This problem can be quickly done.
Start by first subtracting **?**

2

Roll Die

$$73 - \boxed{} = \boxed{}$$



Make 70

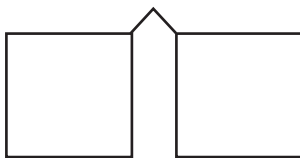
Subtract
the rest

The answer will be quick to see,
if you first subtract a **?**

3

Roll Die

$$84 - \boxed{} = \boxed{}$$



Make 80

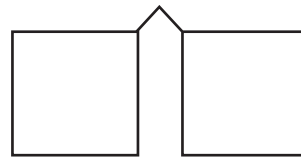
Subtract
the rest

Thinking smart is nothing more
than simply first subtracting **?**

4

Roll Die

$$95 - \boxed{} = \boxed{}$$



Make 90

Subtract
the rest

The answer's easy to derive,
if you first subtract a **?**



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The Make 10 Subtraction Strategy

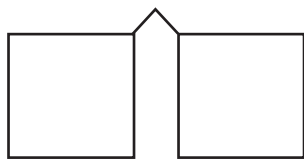


Roll-em! Roll one die and write the number in the red box. Use the Make 10 subtraction strategy to help you find the missing subtrahend.

1

Roll Die

$$11 - \square = \square$$



Make 10

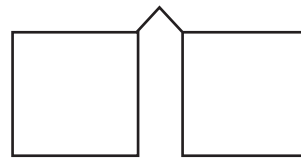
Subtract
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Start by first subtracting ?

2

Roll Die

$$12 - \square = \square$$



Make 10

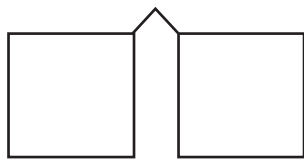
Subtract
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Subtracting will be quick to do.
First just take away a ?

3

Roll Die

$$13 - \square = \square$$



Make 10

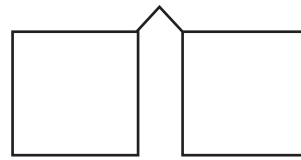
Subtract
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The answer will be quick to see,
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4

Roll Die

$$14 - \square = \square$$



Make 10

Subtract
the rest

Thinking smart is nothing more
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The Make 10s Subtraction Strategy

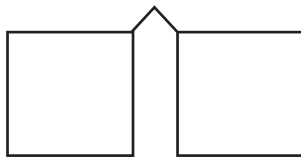


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1

Roll Die

$$22 - \square = \square$$



Make 20

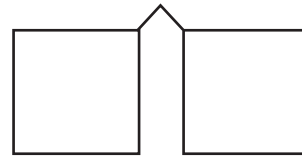
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First just take away a ?

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Roll Die

$$23 - \square = \square$$



Make 20

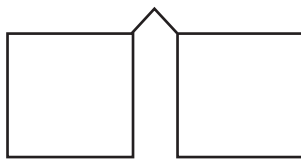
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Roll Die

$$24 - \square = \square$$



Make 20

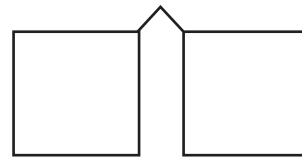
Subtract
the rest

Thinking smart is nothing more
than simply first subtracting ?

4

Roll Die

$$25 - \square = \square$$



Make 20

Subtract
the rest

The answer's easy to derive,
if you first subtract a ?



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The Make 10s Subtraction Strategy

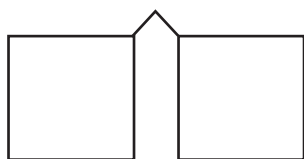


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Roll Die

$$31 - \square = \square$$



Make 30

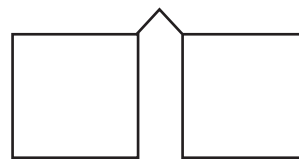
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Start by first subtracting ?

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$$42 - \square = \square$$



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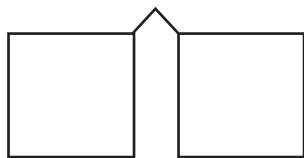
Subtract
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First just take away a ?

3

Roll Die

$$54 - \square = \square$$



Make 50

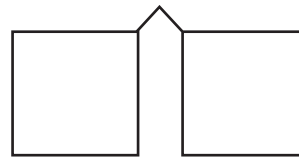
Subtract
the rest

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Roll Die

$$65 - \square = \square$$



Make 60

Subtract
the rest

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The Make 10s Subtraction Strategy

10

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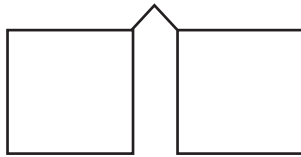


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Roll Die

$$61 - \square = \square$$



Make 60

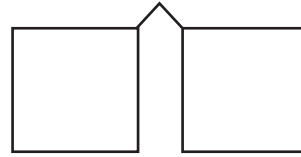
Subtract
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Start by first subtracting ?

2

Roll Die

$$73 - \square = \square$$



Make 70

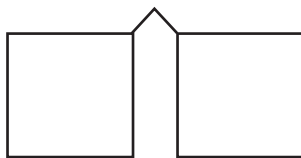
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Roll Die

$$84 - \square = \square$$



Make 80

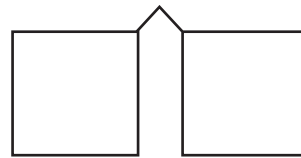
Subtract
the rest

Thinking smart is nothing more
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Roll Die

$$95 - \square = \square$$



Make 90

Subtract
the rest

The answer's easy to derive,
if you first subtract a ?

