

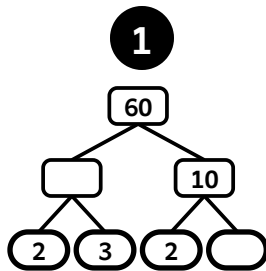


Learn a new puzzle

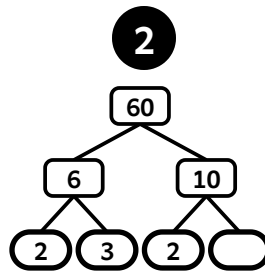
Factor Hunts

The two numbers under a box multiply to make it. The round boxes at the bottom are primes.

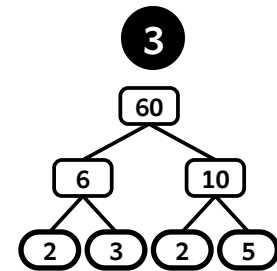
Trick: **Multiply up, divide down**



Two boxes are empty.
Start where you know two
numbers.

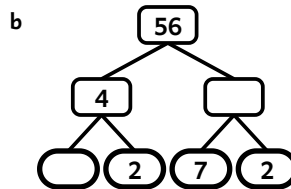
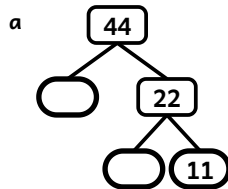


Multiply up: $2 \times 3 = 6$.



Divide down: $10 \div 2 = 5$.
Every box is full.

Try it

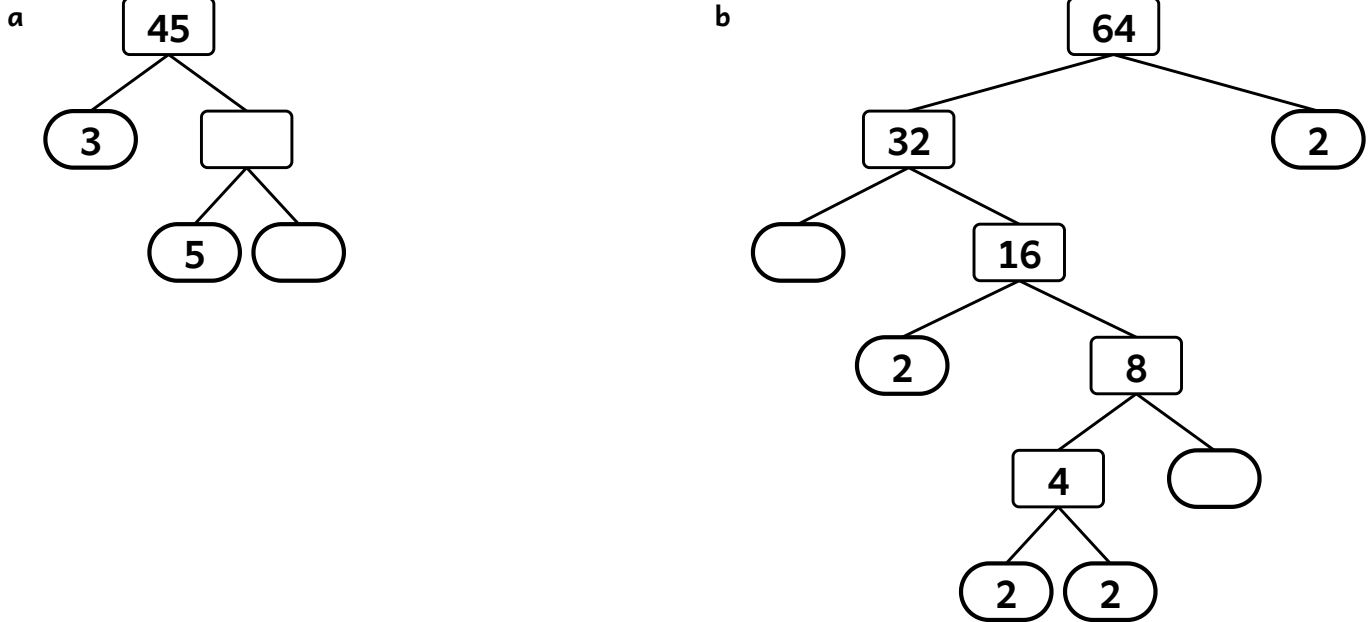


The answer is with
the other answers.

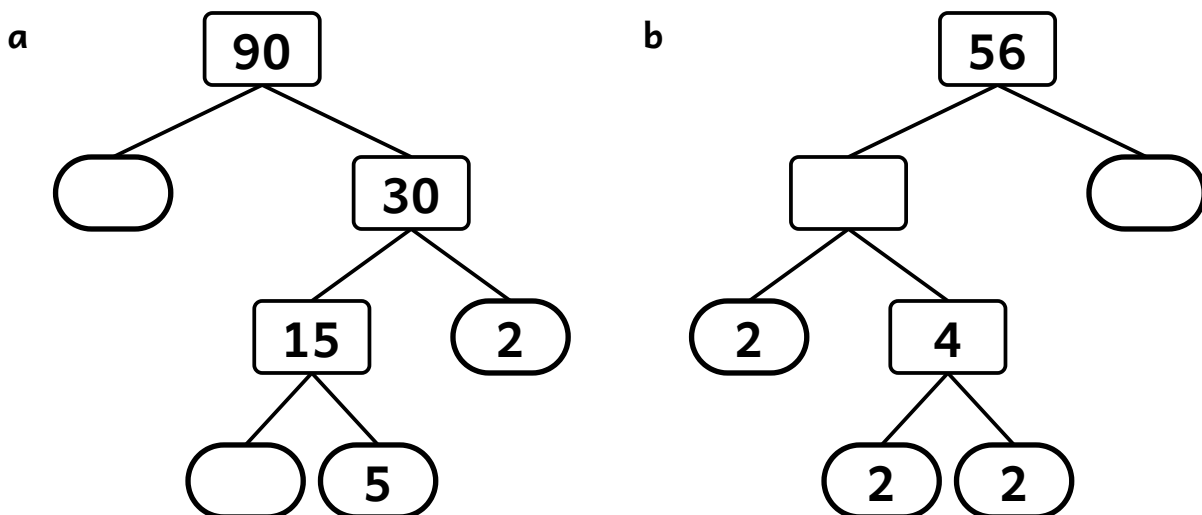
Talk about it: Ask: Which box can you fill first, and how do you know?

**1****Factor Hunts**

Fill in the empty boxes. The two numbers under a box multiply to make it.

**2****Factor Hunts**

Fill in the empty boxes. The two numbers under a box multiply to make it.





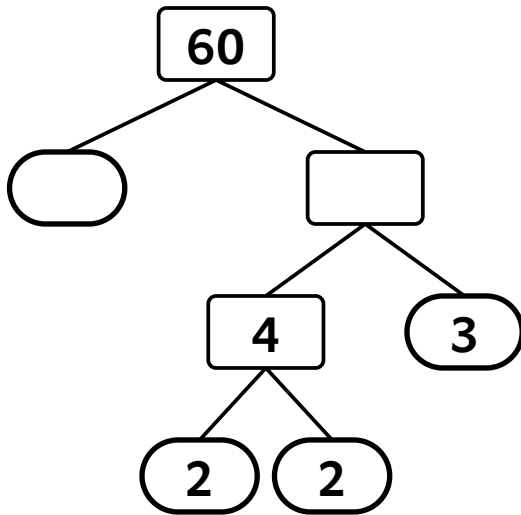
3

Factor Hunts

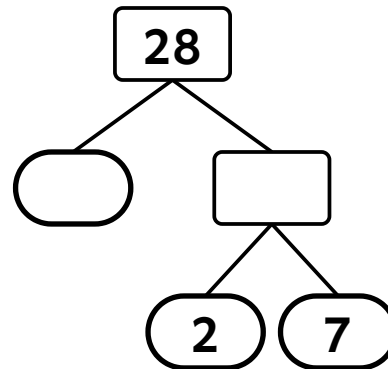
Fill in the empty boxes. The two numbers under a box multiply to make it.



a



b



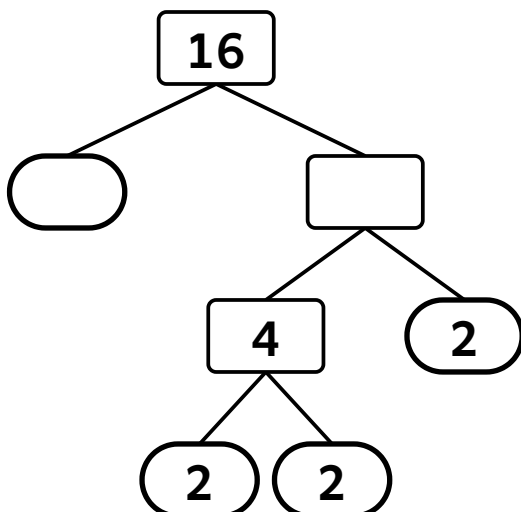
4

Factor Hunts

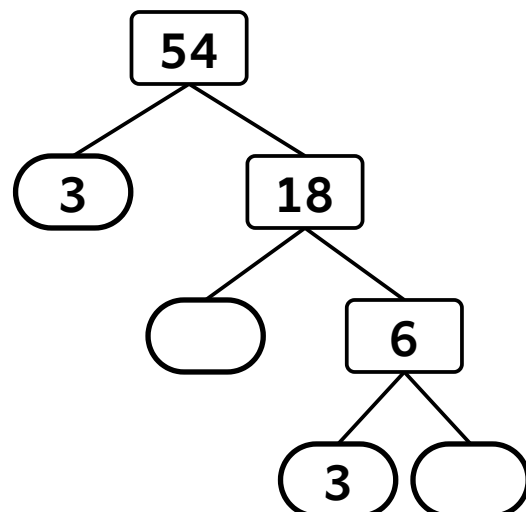
Fill in the empty boxes. The two numbers under a box multiply to make it.



a



b





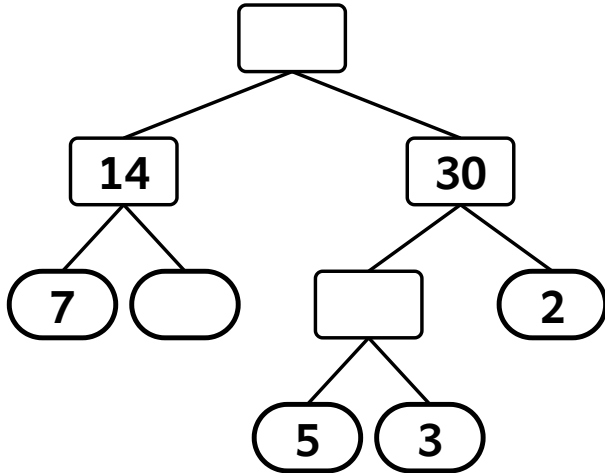
5

Factor Hunts

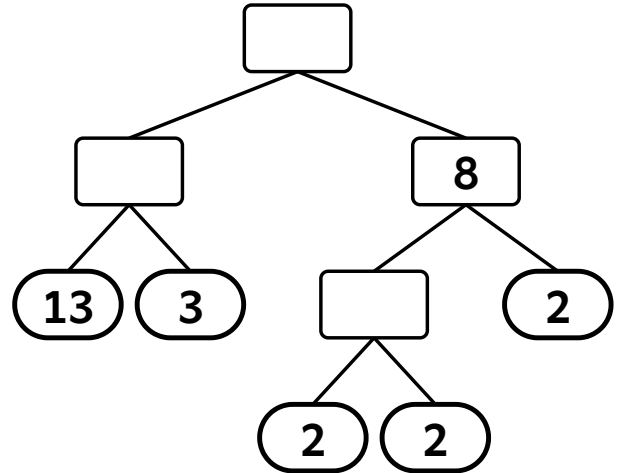
Fill in the empty boxes. The two numbers under a box multiply to make it.



a



b



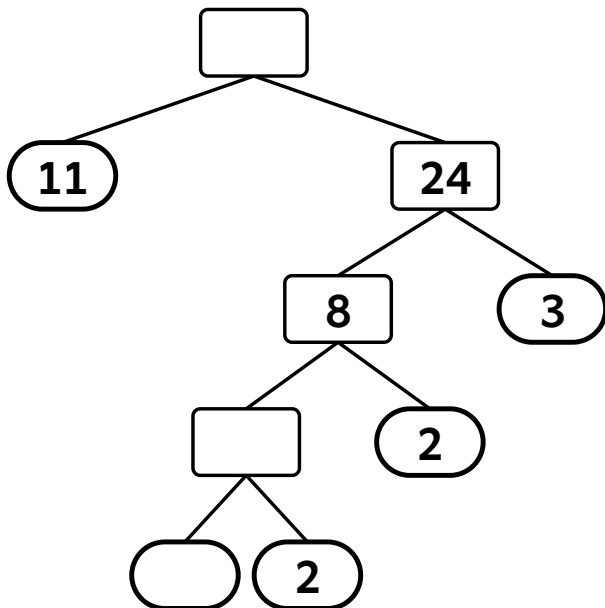
6

Factor Hunts

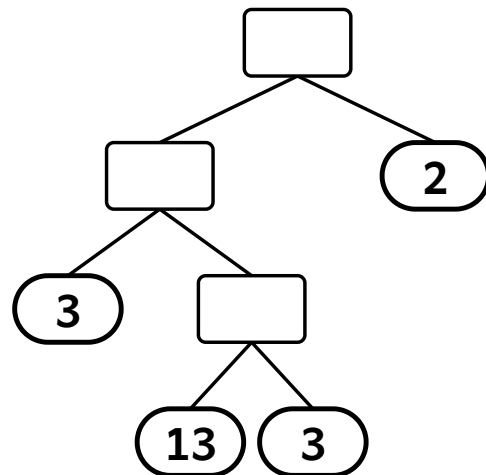
Fill in the empty boxes. The two numbers under a box multiply to make it.



a

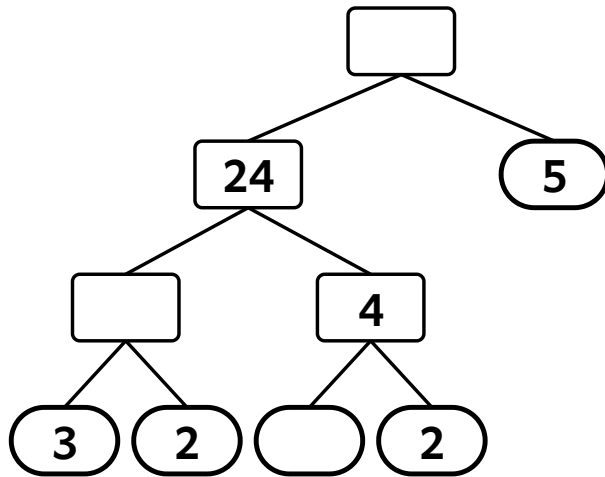
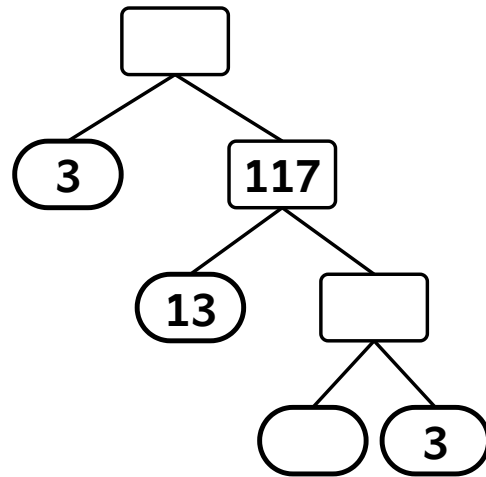


b



**7****Factor Hunts**

Fill in the empty boxes. The two numbers under a box multiply to make it.

**a****b****8****Factor Hunts**Which number am I? I am a whole number from 1 to 100.
Use every clue.

- a** I am a multiple of 6.
I have exactly 8 factors.
I am between 75 and 89.

I am

- b** I have exactly 2 factors.
I am between 34 and 53.
My digits add up to 5.

I am

- c** I am between 11 and 31.
I am a multiple of 5.
I am a multiple of 4.

I am

**9****Factor Hunts**

Which number am I? I am a whole number from 1 to 100.
Use every clue.



a I am even.

I am between 56 and 77.

My digits add up to 14.

I am

b I am between 50 and 65.

I have exactly 8 factors.

I am a multiple of 4.

I am

c I am a multiple of 3.

I have exactly 4 factors.

I am a multiple of 7.

I am

10**Factor Hunts** Find the two numbers.

a Two numbers have GCF 2 and LCM 28. Both are bigger than 2.

They are

b Two numbers have GCF 4 and LCM 160. Both are bigger than 4.

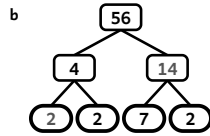
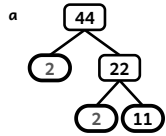
They are



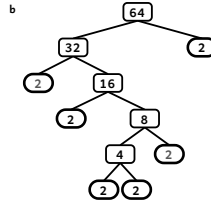
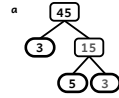
Answers

 For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn • Factor Hunts

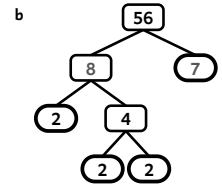
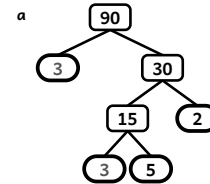


#1



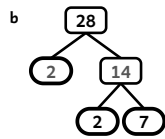
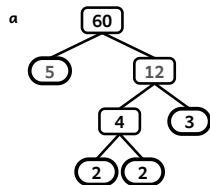
a: $45 \div 3 = 15$; $15 \div 5 = 3$. b: $32 \div 16 = 2$; $8 \div 4 = 2$.

#2



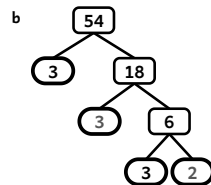
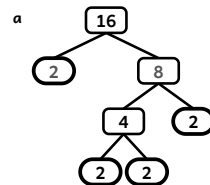
a: $90 \div 30 = 3$; $15 \div 5 = 3$. b: $2 \times 4 = 8$; $56 \div 8 = 7$.

#3



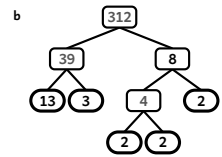
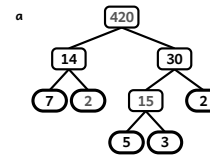
a: $4 \times 3 = 12$; $60 \div 12 = 5$. b: $2 \times 7 = 14$; $28 \div 14 = 2$.

#4



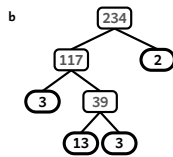
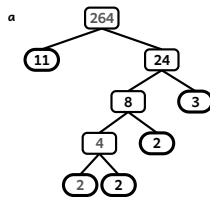
a: $4 \times 2 = 8$; $16 \div 8 = 2$. b: $18 \div 6 = 3$; $6 \div 3 = 2$.

#5



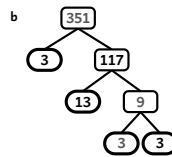
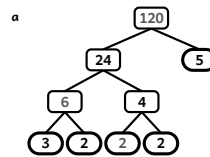
a: $14 \times 30 = 420$; $14 \div 7 = 2$; $30 \div 2 = 15$. b: $13 \times 3 = 39$; $8 \div 2 = 4$; $39 \times 8 = 312$.

#6



a: $11 \times 24 = 264$; $8 \div 2 = 4$; $4 \div 2 = 2$. b: $13 \times 3 = 39$; $3 \times 39 = 117$; $117 \times 2 = 234$.

#7



a: $24 \times 5 = 120$; $24 \div 4 = 6$; $4 \div 2 = 2$. b: $3 \times 117 = 351$; $117 \div 13 = 9$; $9 \div 3 = 3$.

#8

a I am a multiple of 6.
I have exactly 8 factors.
I am between 75 and 89.

I am

b I have exactly 2 factors.
I am between 34 and 53.
My digits add up to 5.

I am

c I am between 11 and 31.
I am a multiple of 5.
I am a multiple of 4.

I am

a: 78. b: 41. c: 20.



Answers For grown-ups. Cut off or keep this page aside until the puzzles are done.

#9

- a I am even.
I am between 56 and 77.
My digits add up to 14.
I am
- b I am between 50 and 65.
I have exactly 8 factors.
I am a multiple of 4.
I am
- c I am a multiple of 3.
I have exactly 4 factors.
I am a multiple of 7.
I am

a: 68. b: 56. c: 21.

#10

- a Two numbers have GCF 2 and LCM 28. Both are bigger than 2.
They are
- b Two numbers have GCF 4 and LCM 160. Both are bigger than 4.
They are
- a: 4 and 14 (GCF 2, and $4 \times 14 = 2 \times 28 = 56$). b: 20 and 32 (GCF 4, and $20 \times 32 = 4 \times 160 = 640$).