SCIENCE • TECHNOLOGY • ENGINEERING • ARTS • MATHEMATICS

My Name:_____

Do all of these:

- ☐ page 1
- ☐ page 2
- ☐ page 3
- ☐ page 4
- ☐ page 5
- ☐ page 6
- ☐ page 7
- ☐ page 8
- ☐ page 9
- ☐ page 10
- ☐ page 11
- ☐ page 12

MAGNETS!

A magnet is a piece of metal that can attract another piece of metal. It can be made of iron, steel, cobalt, or even metal.

Ready to code? Dr. Programmer is, and he will show you how!
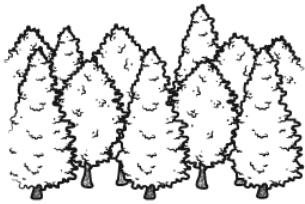
MAGNETS!

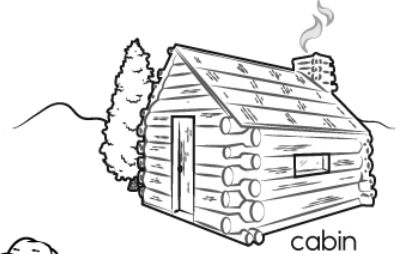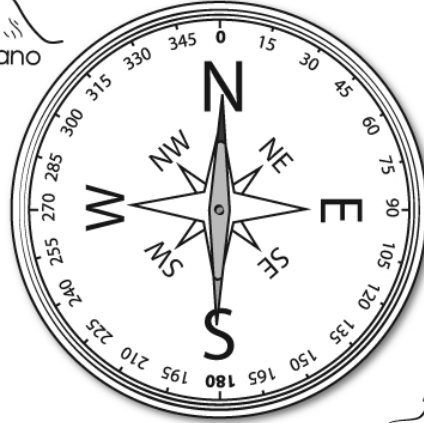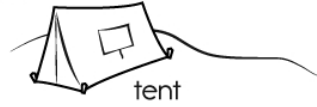Which direction would you travel
to reach each landmark?

mountains

volcano

*The north pole is magnetized, which
attracts the magnet on a compass
needle. It will always point north.

tent

lake

cabin

waterfall

forest

butte

__NE__ tent

_____ cabin

_____ waterfall   _____ mountains
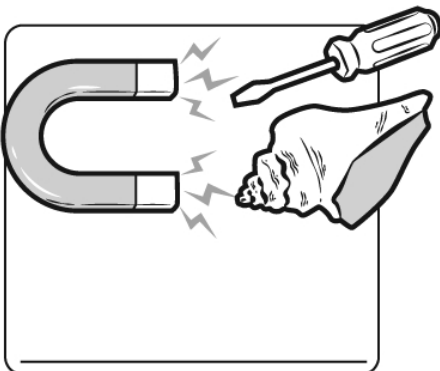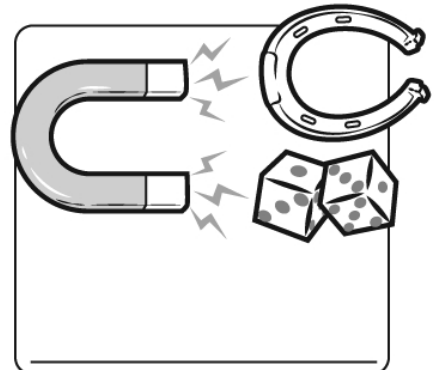
_____ lake   _____ volcano
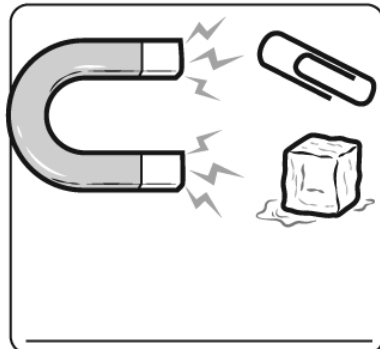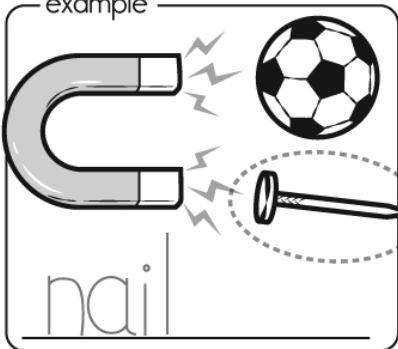
_____ forest   _____ butte

Which item is the magnet most likely to attract?
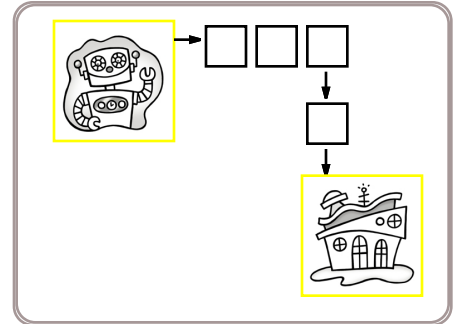
example

nail
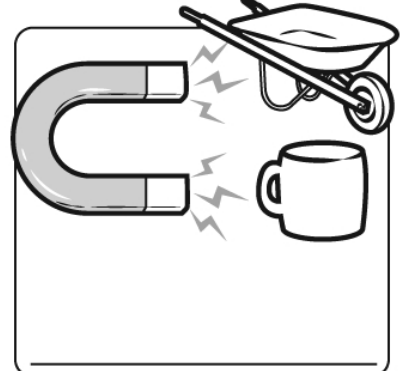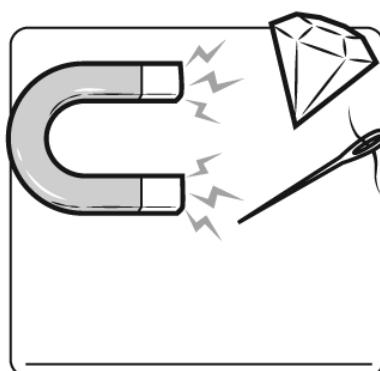
go_down (how many squares) The robot will go down this many squares.

go_right (how many squares) The robot will go right this many squares.

Secret map:

```
print_robot()
go_right ( 3 )
go_down ( 1 )
print_robot_home()
```
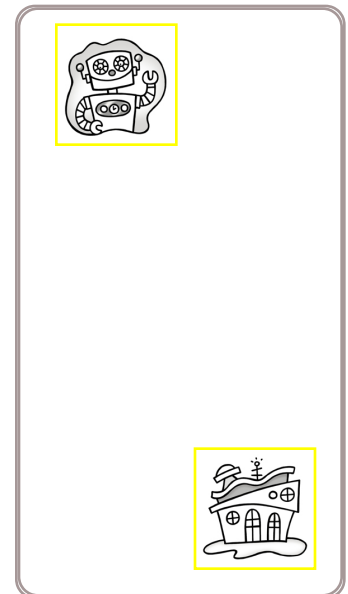
Draw the map:

Robot moved __4__ squares.

Secret map:

```
print_robot()
go_down ( 3 )
go_right ( 2 )
go_down ( 1 )
print_robot_home()
```
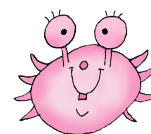
Draw the map:

Robot moved _____ squares.

$132 \div 12 =$

1 lb = 16 oz

28 lb = _____ oz

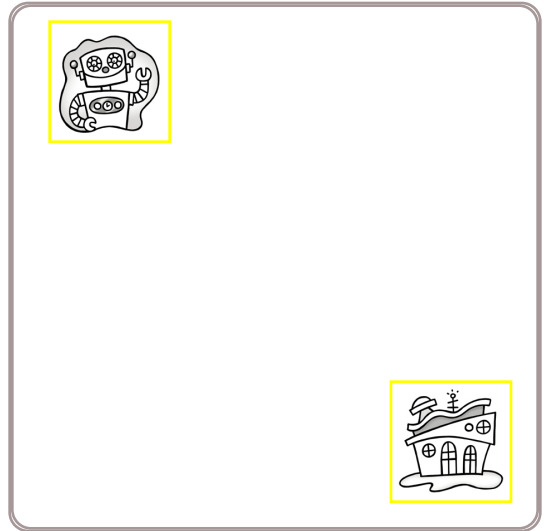## Secret map:

print_robot()
go_right (2)
go_right (2)
go_down (2)
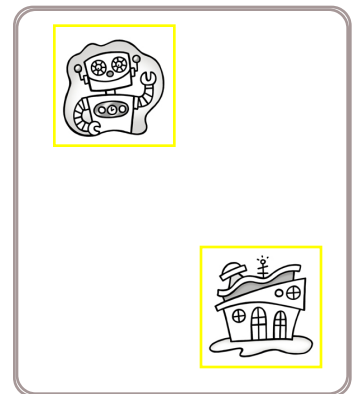go_down (2)
print_robot_home()

Draw the map:

Robot moved _____ squares.

Secret map:

print_robot()
go_right (1)
go_down (2)
print_robot_home()

Draw the map:

Robot moved _____ squares.

Circle the greatest number:

8,076,329

451,284

37,096,154

162,937,805

```
  3 7 6
- 1 4 7
```
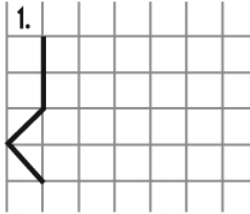
7 x 3 =

```
  3 9
+ 2 4
```
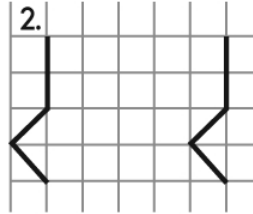
Regular Tessellating Shapes

Drawing Tessellations
Make your own!
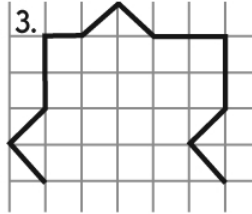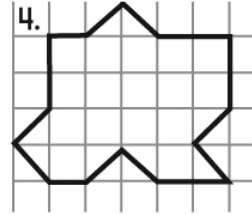
Don't forget to color your artwork!

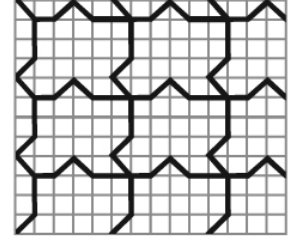Example

1. Draw a vertical line.

2. Copy that vertical line across from it.

3. Draw a horizontal line.

4. Copy that horizontal line below it.

5. Repeat your shape to fill the grid.

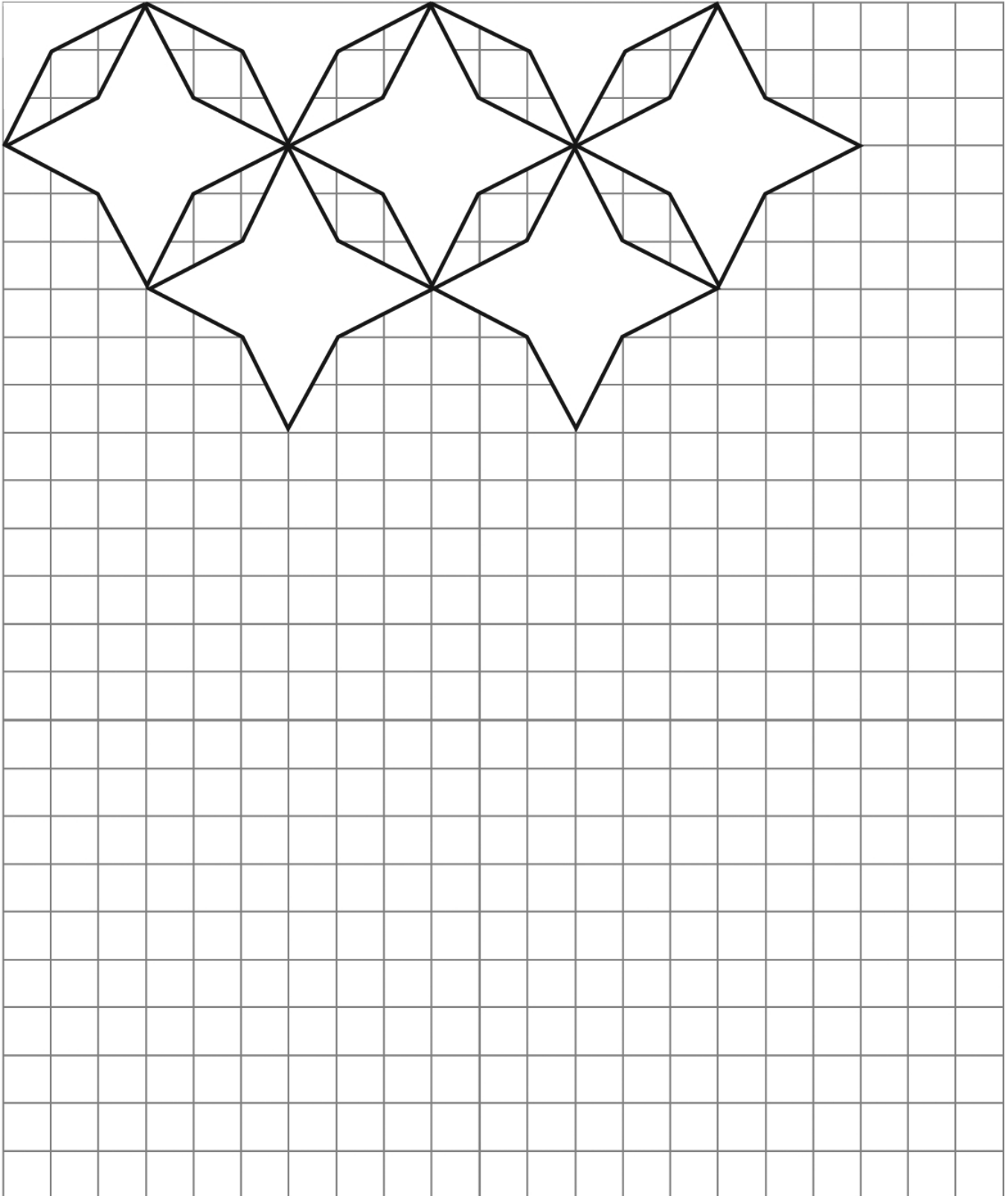**Semi-regular Tessellating Shapes**

Drawing Tessellations
Repeat the shape
to fill the page.

Don't forget to
color your
artwork!

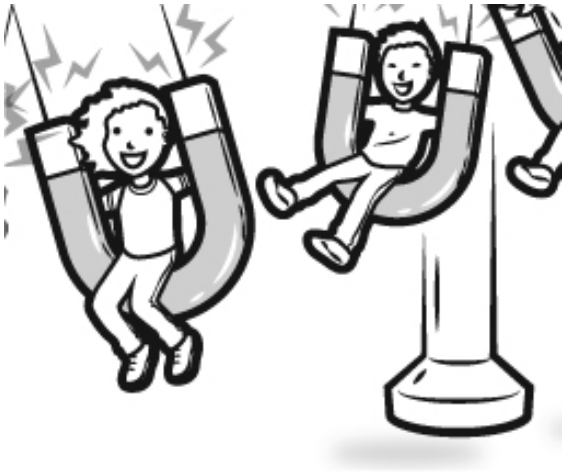| Mayor of Magnet Fair |
|---|

Magnets are great. It's amazing how little pieces of iron can push and pull things. Of course, magnets only work on things that are magnetic, such as things that contain metal. Tricky!

Draw a picture of a magnet pulling something.

You are Mayor of Magnet Fair and have a fair to run. Magnets are fun, but they are much more than that at the Magnet Fair. Here they are celebrated! We are talking crazy rides that use magnets to toss and turn you and much more. Pretend you are mayor and are in charge of this imaginary fair. Write ideas for the fair. Make it up; there are no rules! Make it magtastic.

My ideas...

I think this crazy imaginary fair to celebrate magnets is going to be (check three or four)

☐ Magnatastic ☐ Imposing ☐ Foul ☐ The Best ☐ Crazy ☐ Awesome
☐ Raucous ☐ Grand ☐ Slow ☐ Peculiar ☐ Insane
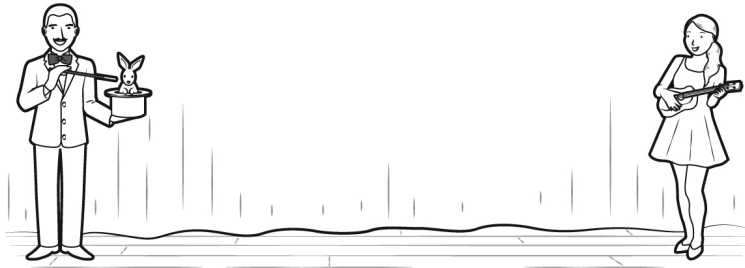
As mayor I am going to _____

Magnet Fair - Magnets Got Talent

Magnets can move things without touching them. It's like magic!

Everyone wants to know about the rides. Name two rides and what they do.

_____

_____

_____

As mayor you will put on a new show at the fair: Magnets Got Talent. There are two contestants.

The first contestant is (fill in name, age, and what he or she will be doing)

_____

_____

What do the judges think? (check whatever you want)

☐ Rad   ☐ Tedious   ☐ Magnatastic   ☐ Stuffy   ☐ Wow   ☐ Borrowed

☐ Dandy   ☐ Original

The first judge sums up this performance. Write what the first judge says.

_____

Name: _____

Math Tricks

Quickly, what is 6 + 8? Is it 14? Maybe 13? It's uh... [using fingers]. You're kidding!
When you add a number to 8, the answer is 10 + that number - 2.

+8 Rule
+ 8 = 1 **# - 2**
3 + 8 = 11
5 + 8 = 13

# = 4	# = 3	# = 8	# = 2
4 + 8 = 1 **4** - 2	__ + 8 = 1 __ - 2	__ + 8 = 1 __ - 2	__ + 8 = 1 __ - 2
= **1 2**	= __ __	= __ __	= __ __

5 + 8 = **1 3**
Since 5 - 2 = 3

2 + 8 = **1** __
Since 2 - 2 = 0

4 + 8 = **1** __
Since 4 - 2 = 2

6 + 8 = **1** __
Since 6 - 2 = 4

7 + 8 = **1** __
Since 7 - 2 = 5

8 + 8 = **1** __
Since 8 - 2 = 6

3 + 8 = **1** __
Since 3 - 2 = 1

9 + 8 = **1** __
Since 9 - 2 = 7

Write in your own words how to add a number to 8.

Step 1: _____

_____

_____

_____

_____

_____

_____

8 + 2 = _____

8 + 2 = _____

8 + 3 = _____

8 + 5 = _____

3 + 8 = _____

8 + 8 = _____

1 + 8 = _____

8 + 2 = _____

8 + 6 = _____

3 + 8 = _____

1 + 8 = _____

8 + 8 = _____

Spin fidget spinner. Quick! Add. Complete each number bond. Do as many as you can before it stops.

15 8 7	◯ 5 8	◯ 1 8	◯ 8 6
◯ 3 8	◯ 8 7	◯ 9 8	◯ 8 6
◯ 4 8	◯ 1 8	◯ 3 8	◯ 6 8
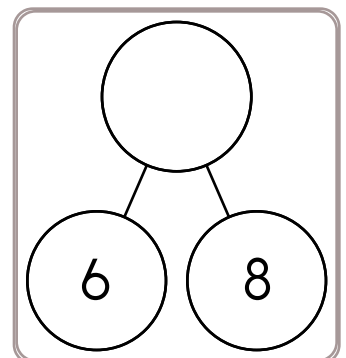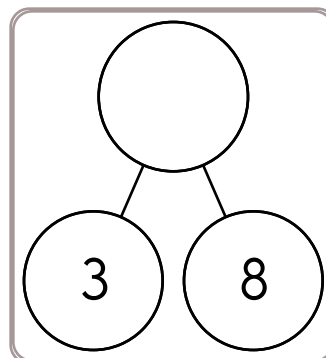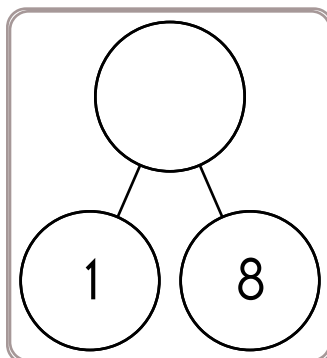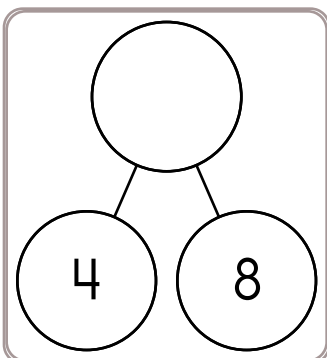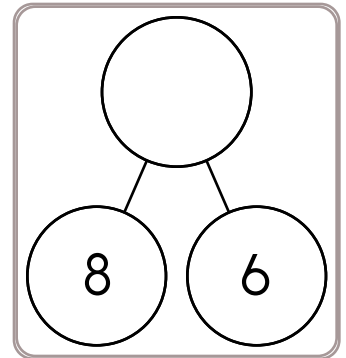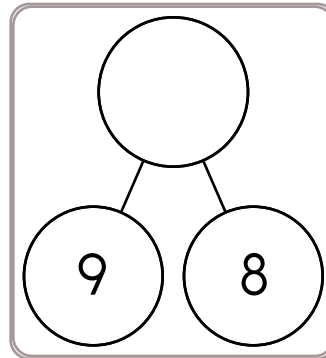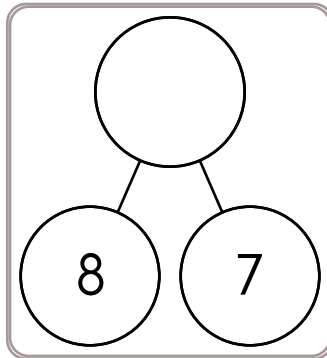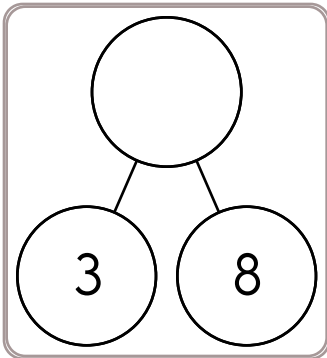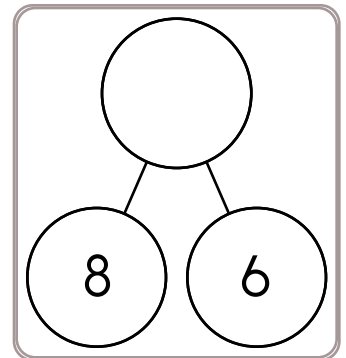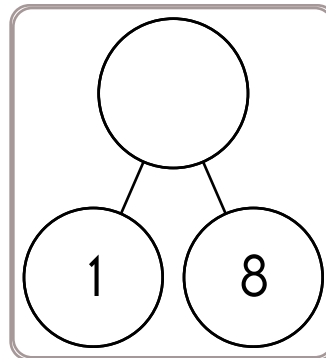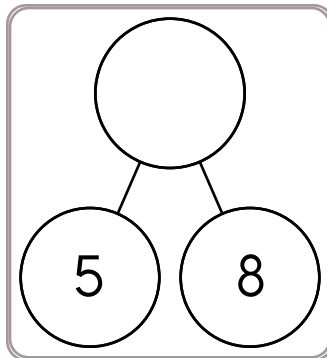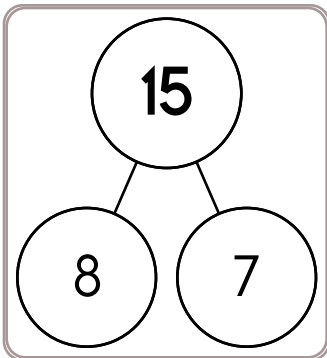
8 + 6 = _____

9 + 8 = _____

8 + 2 = _____

8 + 3 = _____

8 + 3 = _____

8 + 6 = _____

7 + 8 = _____

8 + 6 = _____

8 + 1 = _____

1 + 8 = _____

8 + 8 = _____

8 + 7 = _____

Spin fidget spinner. Quick! Add. Complete each number bond. Do as many as you can before it stops.

13 / 5 8	○ / 7 8	○ / 8 8	○ / 9 8
○ / 6 8	○ / 3 8	○ / 5 8	○ / 1 8
14 / ○ ○	**10** / ○ ○	**12** / ○ ○	**17** / ○ ○
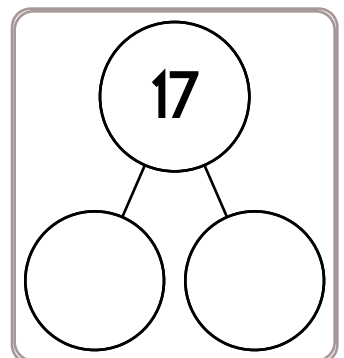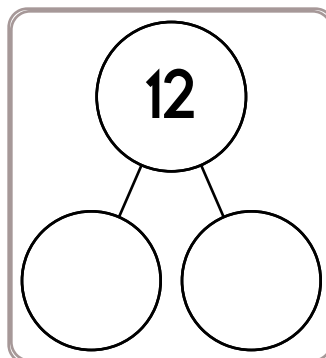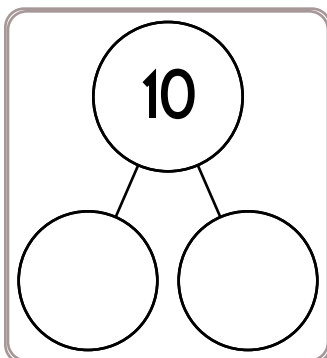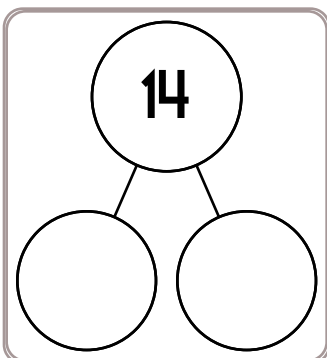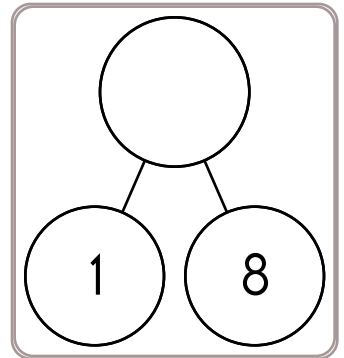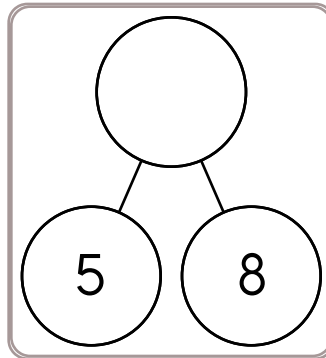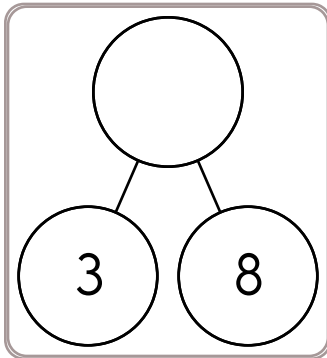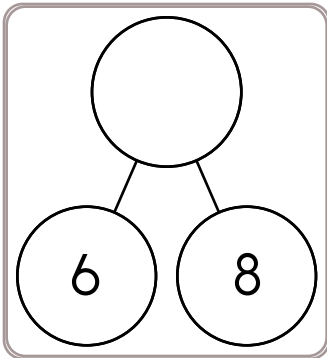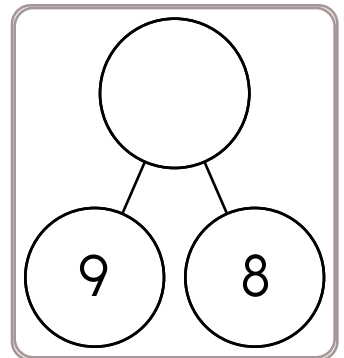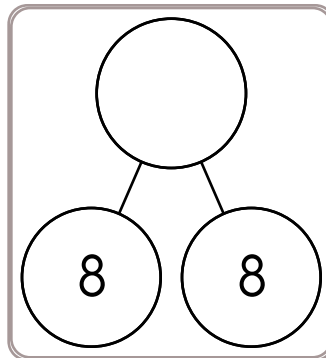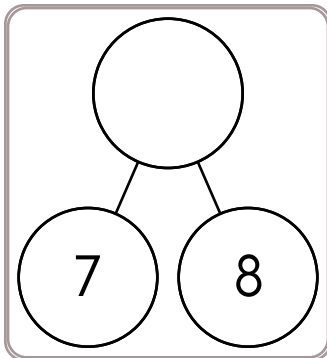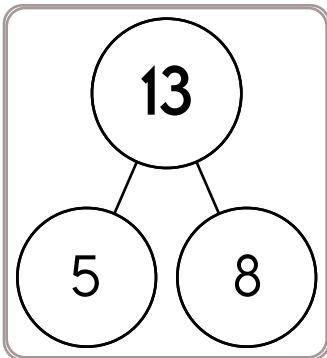
Dr. Programmer loves to type on his computer. But his darn monitor is sometimes broken. Fill in what the computer should print.

print This is the computer's pencil. It will be used to write something.

Dr. Programmer typed:	The computer replied:
print ("Robots are fun.")	Robots are fun.

Dr. Programmer typed:	The computer replied:
print ("Robots can talk.")	R o b o _ s _ c n _ _ _ l k .

Dr. Programmer typed:	The computer replied:
A = "walk" print ("Robots can ", A, ".")	_____ _____ _____ __

Dr. Programmer typed:	The computer replied:
A = "hop" print ("Robots can ", A, ".")	

Dr. Programmer is Counting Pens
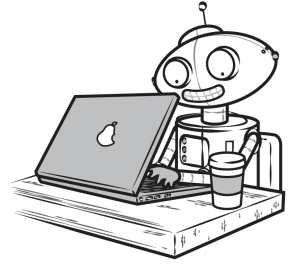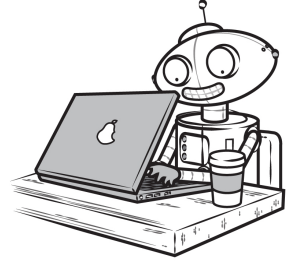
Dr. Programmer loves to type on his computer. But his darn monitor is sometimes broken. Fill in what the computer should print.

(Don't tell anyone, but these are some of Dr. Programmer's secret commands!)

print This is the computer's pencil. It will be used to write something.

Dr. Programmer typed:

The computer replied:

red pens = 9
green pens = 3
pens = red pens+green pens

print("There is a total of ",pens," pens.")

There is a total of 12 pens.

---

red pens = 7
green pens = 5
pens = red pens+green pens

print("There is a total of ",pens," pens.")

_ _ _ _ _ _ _ _
_ _ _ _ l o _ _ _
_ _ _ _ .

---

red pens = 6
green pens = 4
pens = red pens+green pens

print("There is a total of ",pens," pens.")