Creature Calculations
MATH PROJECT

WonderHere press

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CREATURE CALCULATIONS

math as a veterinarian

Step into the paws-itively exciting world of veterinary care with Creature Calculations! In this hands-on math project, young learners become junior veterinarians, using real-world math skills to care for furry, feathered, and scaly friends. From measuring medication doses and calculating animal weights to scheduling appointments and budgeting for supplies, students will explore how math helps vets keep their patients healthy and happy. Get ready to solve problems, think critically, and discover how numbers can save the day—one creature at a time!

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Primary Level(generally grades K-1st)

Task 1: Comparing Size 8-9
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Post-Primary Level(generally grades 2nd-3rd)

Task 1: Measurement & Scale 11
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Task 3: Patterns & Graphing 20-22
Task 4: Logical Reasoning 29
Task 5: Adding and Multiplying 34

Comprehensive Level(generally grades 4th-6th)

Task 1: Measurement & Scale 10
Task 2: Multiplying with Decimals 16
Task 3: Percentages & Graphing 23-25
Task 4: Logical Reasoning 30
Task 5: Adding and Multiplying with Decimals 35

MATH TOPICS ADDRESSED	Primary	Post-Primary	Compre-hensive
Develop a concept of numeracy through play	✓		
Follow simple step-by-step directions	✓		
Classify, and organize information through observations and measurements	✓		
Sequence numbers	✓		
Displays understanding of basic addition and subtraction skills 0–20	✓		
Addition and subtraction algorithms		✓	✓
Practice measuring accurately and with estimation.	✓	✓	✓
Record and present data using tables and diagrams.	✓	✓	✓
Add 2 and 3-digit numbers with regrouping.		✓	✓
The child observes the regularities of number sequences and continues a number sequence following its rule.		✓	
Practice operations in versatile situations		✓	✓
Multiplication and division with natural numbers.		✓	✓
Practice basic arithmetic operations with decimal numbers.			✓
Practices calculating percentages in simple examples.			✓

ALL LEVELS

Welcome to WonderHere Creature Care Center!

You're stepping into the exciting role of a veterinarian! Today, you'll encounter a variety of fascinating animal patients who need your expert care. Your mission is to use your math skills to provide top-quality treatment, from calculating medication doses to managing appointment schedules. Every problem you solve will directly impact the health and happiness of our furry, feathered, and scaly friends. Are you ready to put on your lab coat, grab your stethoscope, and use your problem-solving abilities to make a real difference in these animals' lives?

ALL LEVELS

Intake Area!

Our first priority is to ensure the safety and comfort of our new animal arrivals. Today, we have three special patients joining us: a playful puppy, a curious kitten, and a bouncing bunny. Before they can see the vet, we need to place them in the appropriate holding pens.

Your task is to weigh and measure each animal carefully. Using these measurements, you'll determine which cage size is best suited for each pet. Remember, choosing the right cage is crucial for their well-being and safety while they wait for their check-up.
Get ready to use your math skills to calculate and compare sizes, ensuring each animal has the perfect temporary home. Let's make our new furry friends feel welcome and secure!

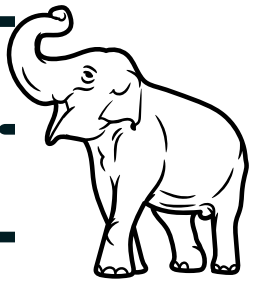
Directions

Practice writing small, medium, and large. Use the space beside each one to draw some things that are small, medium, and large. Then, color and cut out the pets. Glue them into the correct cage on the next page.

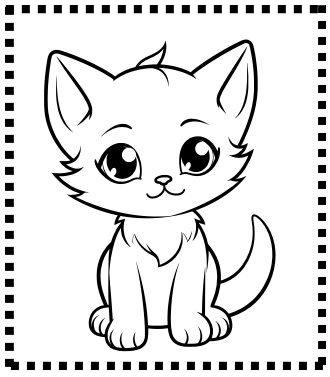
WRITE

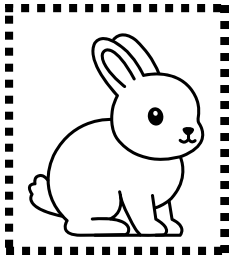
small

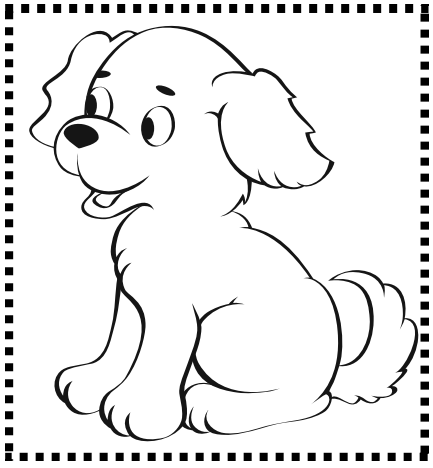
medium

large 

COLOR and CUT



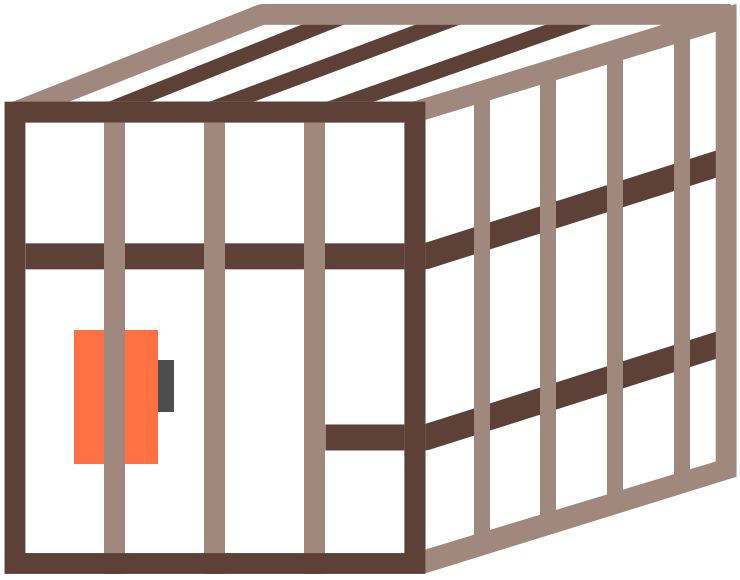


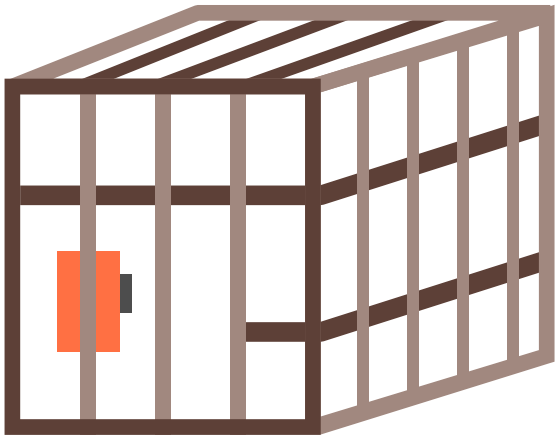


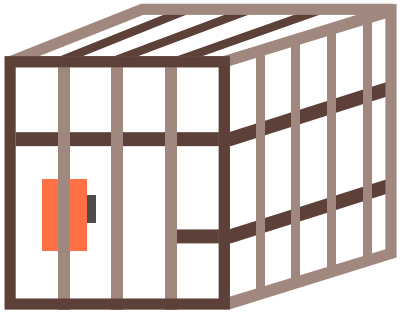
PRIMARY

WRITE small, medium, or large.

GLUE the matching pet.







Directions

It's time to place the pets into the correct cage until it's their turn to be seen. It's important for each one to go into the correct cage. Look at the pet patient cards below. The weight is recorded for you, but the height is missing! Use a ruler to measure each pet, then use the scale provided to find the pet's real life height.

Scale 1 inch = 12 inches

Name: Whiskers

Age: 8 weeks

Weight: 2 lbs

Height:

Name: Floppy

Age: 16 weeks

Weight: 7 lbs

Height:

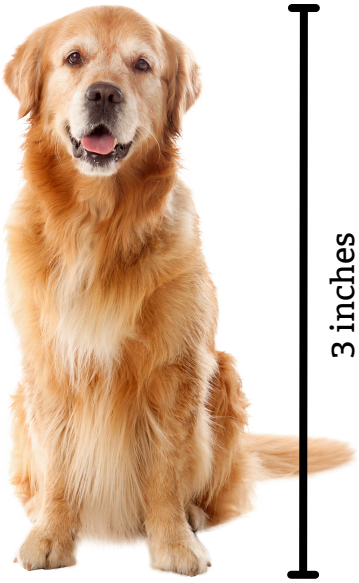
Name: Edison

Age: 12 weeks

Weight: 15 lbs

Height:

Example



Using the scale provided, 1 inch on this paper is equal to 12 inches in real life. So,

3 x 12 = 36 inches

Since there are 12 inches in 1 foot, we can find Ed's height in feet by dividing by 12.

36 ÷ 12 = 3

So, Bill the golden retriever is 36 inches, or 3 feet tall.

COMPREHENSIVE

Directions

It's time to place the pets into the correct cage until it's their turn to be seen. It's important for each one to go into the correct cage. Look at the pet patient cards below. The weight is recorded for you, but the height is missing! Use a ruler to measure each pet, then use the scale provided to find the pet's real life height.

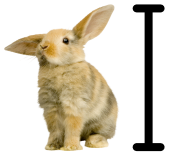
Scale 1 inch = 12 inches

Name: Whiskers

Age: 8 weeks

Weight: 2 lbs

Height(in feet):



Name: Floppy

Age: 16 weeks

Weight: 7 lbs

Height(in feet):

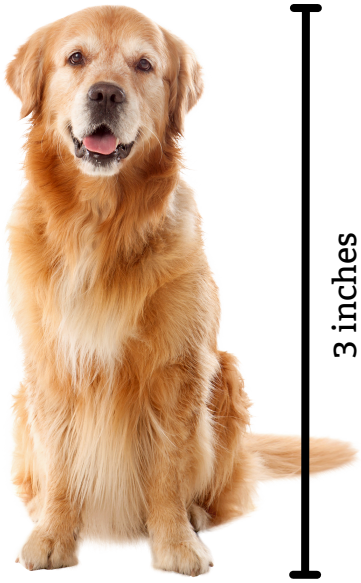
Name: Edison

Age: 12 weeks

Weight: 15 lbs

Height(in feet):

Example



Using the scale provided, 1 inch on this paper is equal to 12 inches in real life. So,

3 x 12 = 36 inches

Since there are 12 inches in 1 foot, we can find Ed's height in feet by dividing by 12.

36 ÷ 12 = 3

So, Ed the golden retriever is 35 inches, or 3 feet tall.

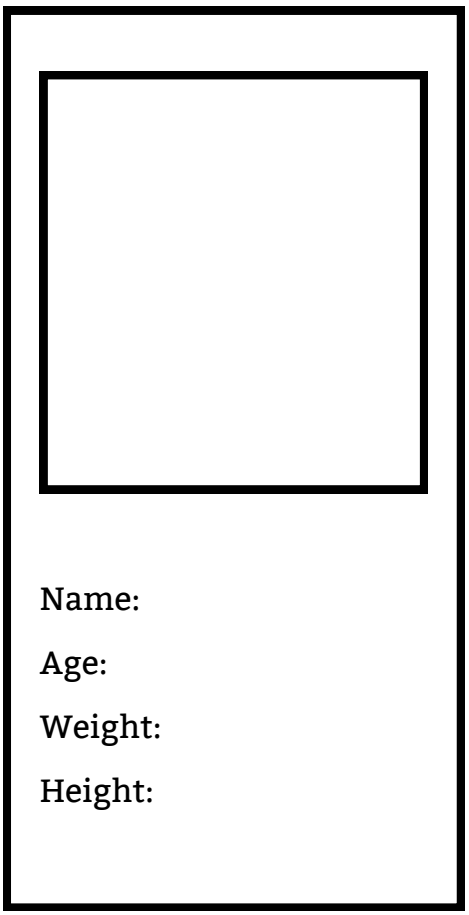
ALL LEVELS

Calling all Vets! Let's Check Our Patients!

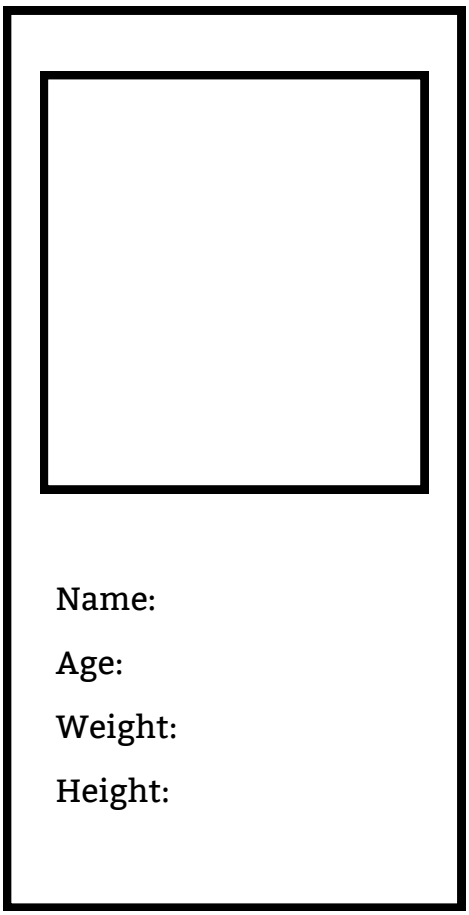
Now it's time to weigh and measure your own (stuffed) animals!

Material Suggestions

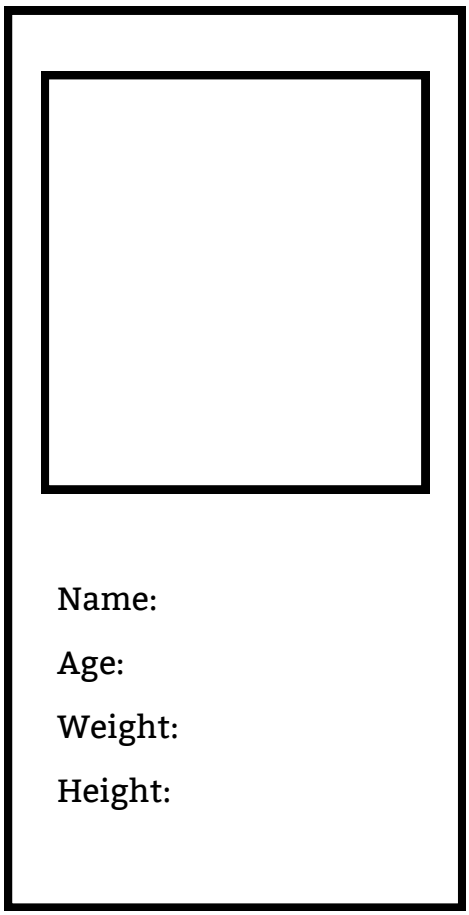
- ◯ 3(or more) stuffed animals or figurines
- ◯ Ruler
- ◯ Kitchen scale



Name:
Age:
Weight:
Height:



Name:
Age:
Weight:
Height:



Name:
Age:
Weight:
Height:

Grown Ups: This can be a great opportunity to add in more practice using scale. Help your child find the actual size of the animals they choose, then challenge them to identify a scale comparing their toy animal's weight and height to the real thing!

Even more math: Challenge your child to convert weight and height measurements from one unit of measurement to another.

ALL LEVELS

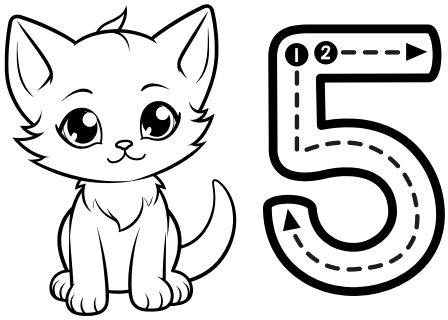
Administering Medication

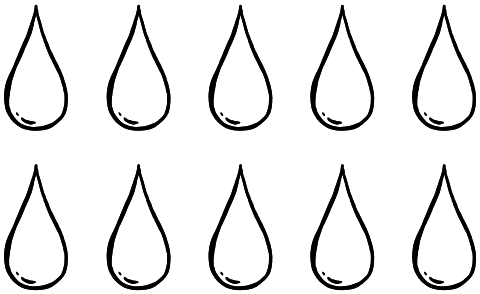
Great job measuring your patients, Doctor! Now it's time for the important task of giving our furry friends their medicine. Our kitten, bunny, and puppy are all different sizes, so they'll need different amounts of medicine to feel better. Can you help figure out the right dose for each animal? Remember, giving the correct amount is super important to make sure our pets get healthy quickly and safely. Let's use our math skills to be the best vet we can be!

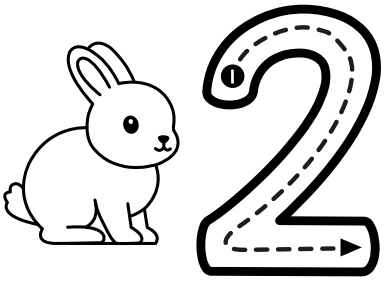
Directions

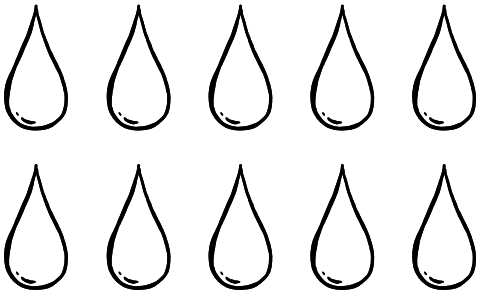
Today, your new animal patients need medicine. Each animal's weight tells you how many medicine drops to give—one drop for every pound!

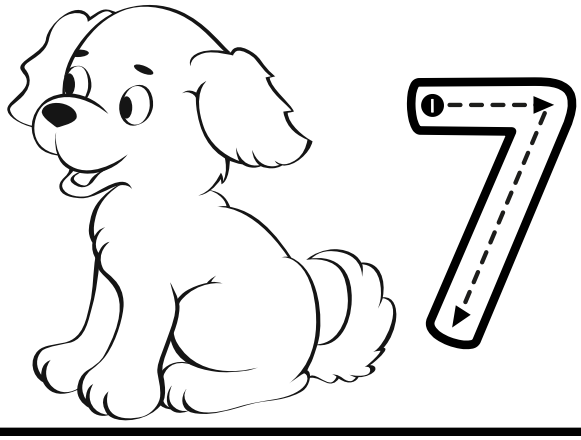
WRITE **the number.** **COLOR** **the drops.**

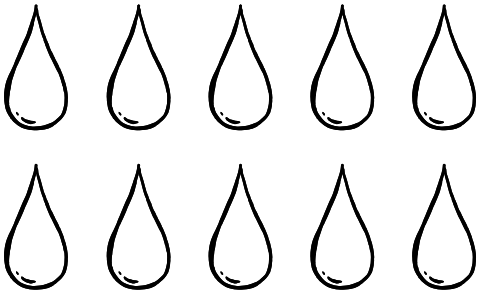












Directions

As a veterinarian at a busy animal clinic, you must calculate the precise amount of medicine for your animal patients. The dosage rule for each pet varies by type. Check the dosage chart below and use it to administer the correct dose to each pet.

Refer to the Pet Information Cards from task 1 for each pet's weight. Complete the medication charts below.

Animal Type	Dosage per pound
Cat	2 mL
Bunny	4 mL
Dog	5 mL

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Whiskers		

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Floppy		

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Edison		

Directions

In your busy veterinary clinic, it is very important to calculate the correct medicine dosage. The dosage rule for each pet varies by type. Check the dosage chart below and use it to administer the correct dose to each pet.

Refer to the Pet Information Cards from task 1 for each pet's weight.

Animal Type	Dosage per pound
Cat	0.3 mL
Bunny	1.2 mL
Dog	2.5 mL

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Whiskers		

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Floppy		

Pet Name	Weight in pounds(lbs)	Medication Dose in milliliters(mL)
Edison		

ALL LEVELS

Home Vet Check

Now it's time to administer medication to your stuffed animals!

Directions

Using the cards you filled out for your stuffed animals or figurines, find how much medicine each of your pets needs. Use the charts below to help you.

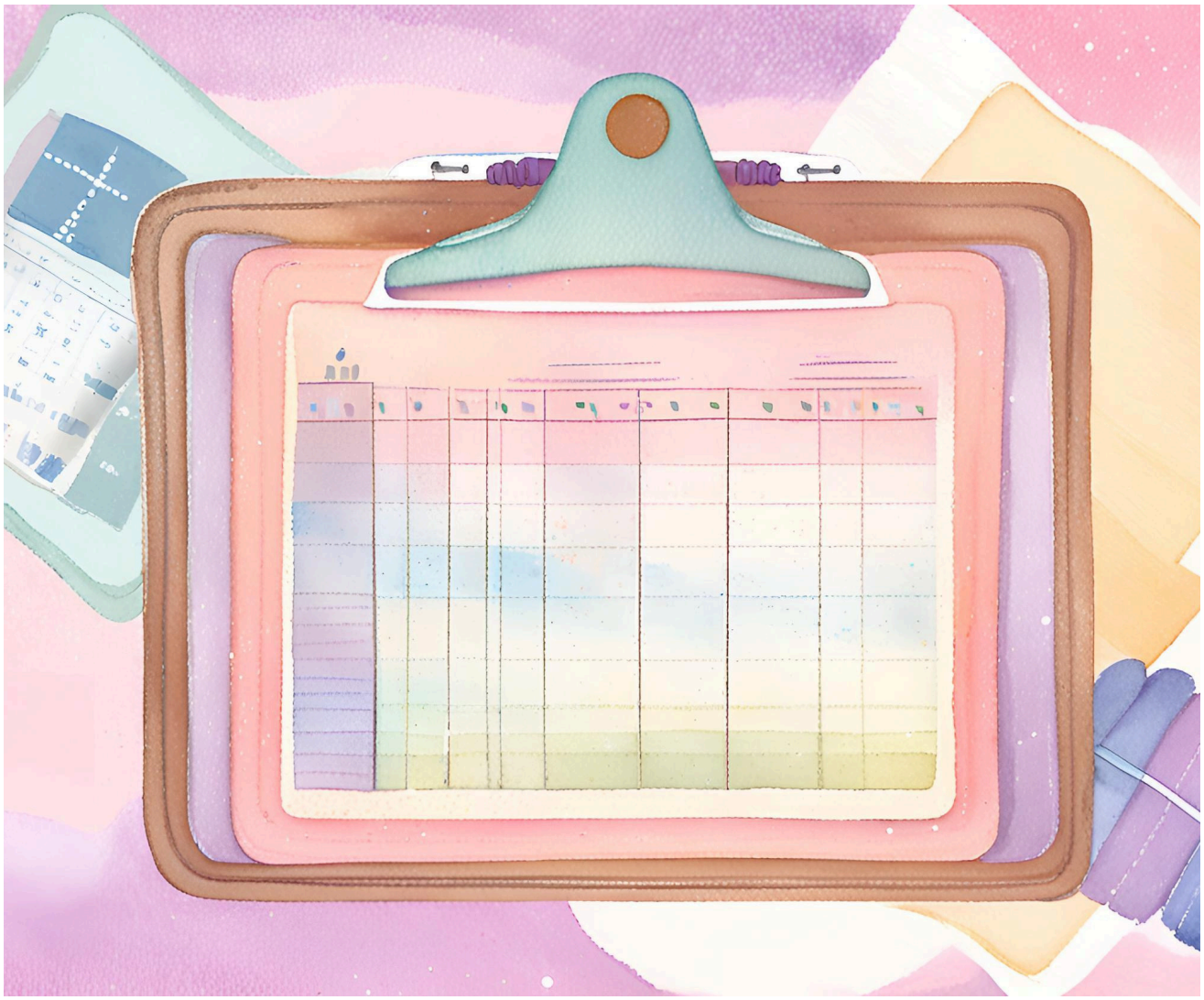
Animal Type	Dosage per pound

Pet Name	Weight in pounds(lbs)	Medication Dose

Grown Ups, this is a great time to differentiate! Some ideas to get started:

- *For Primary, help them fill out the number of drops their pets need per pound. This is a great opportunity to skip count by 2s, 3s, or 5s! I.e., their pets need 2 drops per pound.*
- *For Post-Primary and Comprehensive, encourage them to try different doses for different animals and to choose challenging mL doses per pound.*

ALL LEVELS



Time for an Update!

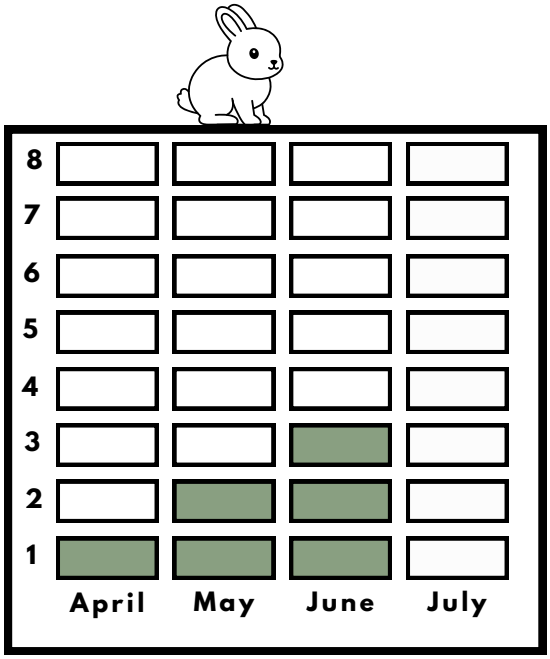
Excellent work, Doctor! You've measured our furry patients and given them their medicine like a pro. Now it's time for some exciting detective work! We need to update our growth charts and predict how big our cat, bunny, and dog will be at their next check-up. Can you spot the patterns in their growth and make a clever prediction about their future size? Your predictions will help us prepare for their next visit and ensure we have everything ready for our growing animal friends.

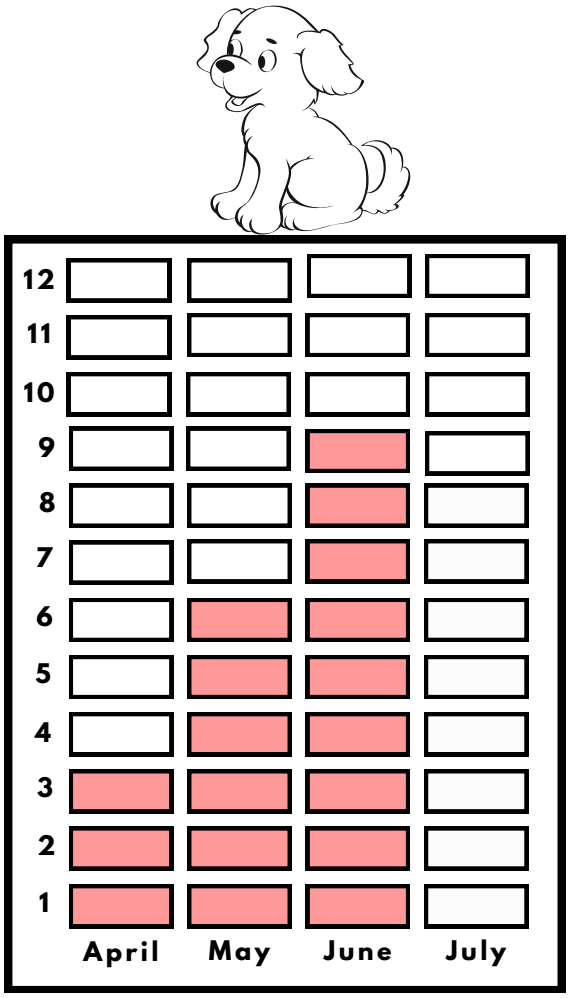
PRIMARY

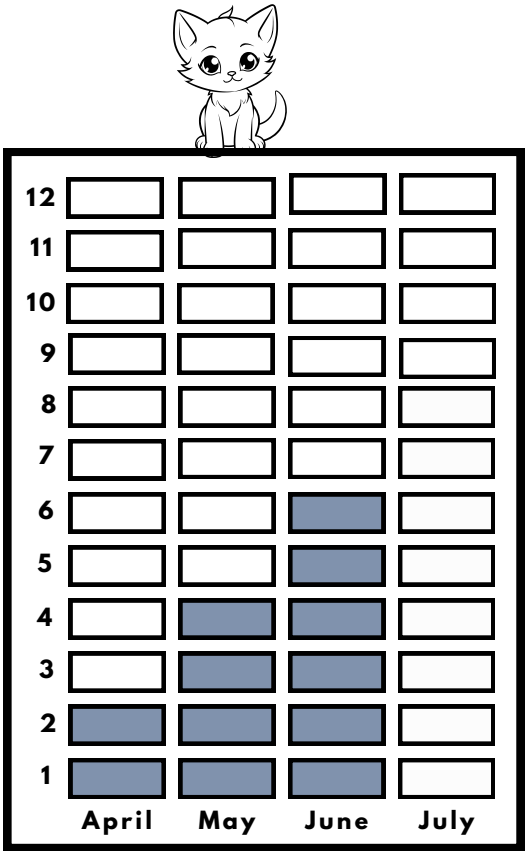
Directions

It's time to track how much your patients are growing!

COLOR the boxes to show how much the pet will grow.







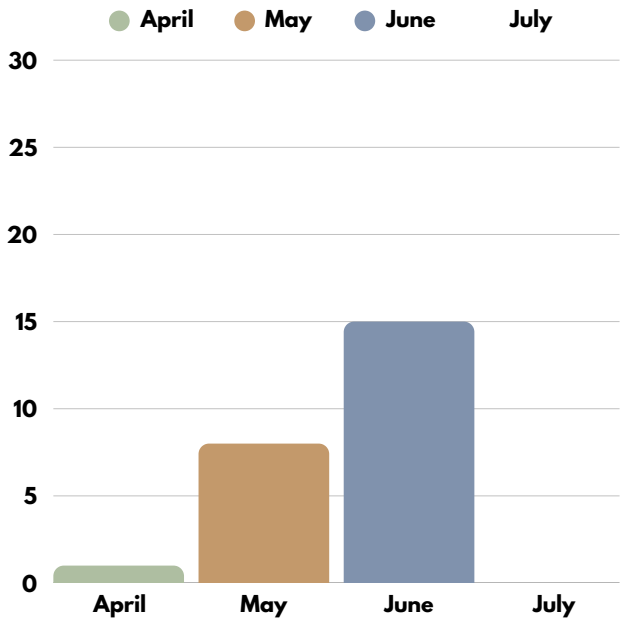
POST-PRIMARY

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Edison

Month	Weight (pounds)
April	1
May	8
June	15
July (next appointment)	?



Explain Your Thinking

How much do you think Edison will weigh when he comes back in July? _____

How did you make your prediction?

_____

_____

_____

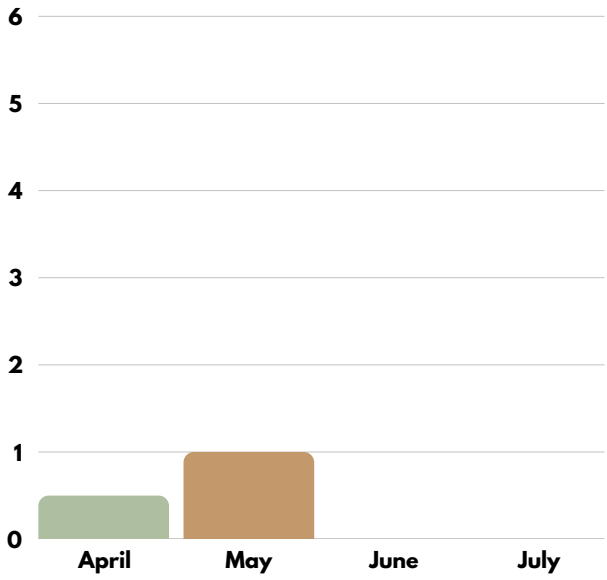
POST-PRIMARY

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Whiskers

Month	Weight (pounds)
April	½
May	1
June	2
July (next appointment)	?



Explain Your Thinking

How much do you think Whiskers will weigh when she comes back in July? _____

How did you make your prediction?

_____

_____

_____

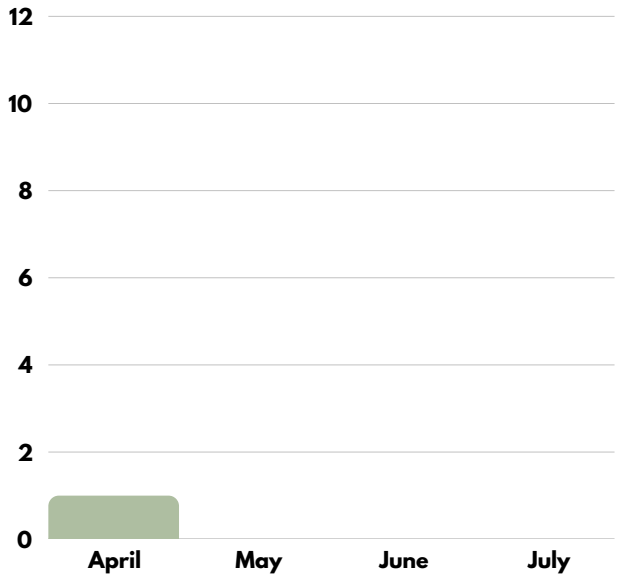
POST-PRIMARY

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Floppy

Month	Weight (pounds)
April	1
May	4
June	7
July (next appointment)	?



Explain Your Thinking

How much do you think Floppy will weigh when he comes back in July? _____

How did you make your prediction?

_____

_____

_____

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Edison

Month	Weight (pounds)
April	1
May	7
June	15
July (next appointment)	?

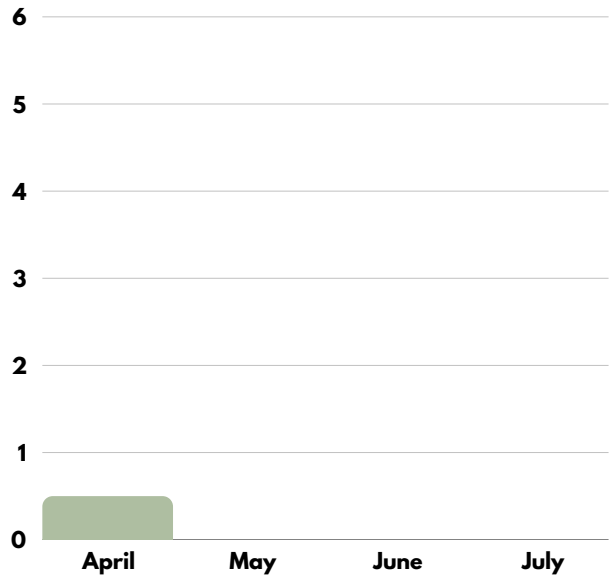
If Edison's weight increases by 20% before his next visit in July, how much will he weigh? Show or explain your thinking in the space below.

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Whiskers

Month	Weight (pounds)
April	½
May	1
June	2
July (next appointment)	?



If Whisker's weight increases by 50% before her next visit in July, how much will she weigh? Show or explain your thinking in the space below.

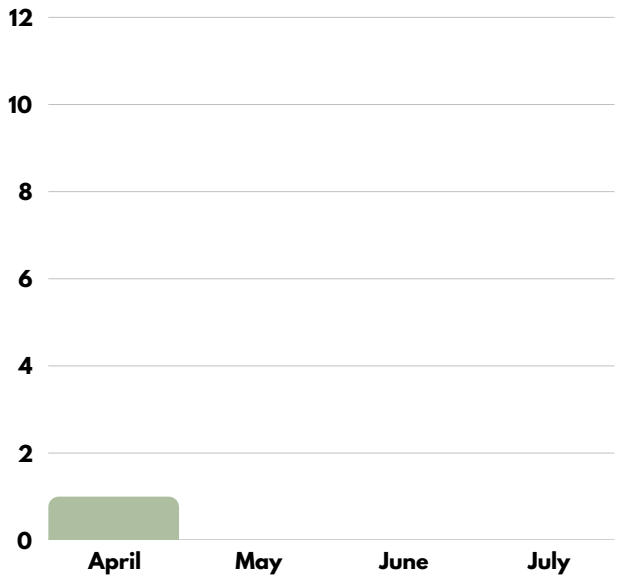
COMPREHENSIVE

Directions

At our busy vet clinic, you help update the medical charts for our animal patients. Your job today is to record how much each pet has grown from one appointment to the next. Use the graphs below to show how much they have grown since their last two appointments and how much you expect them to grow by their next appointment.

Floppy

Month	Weight (pounds)
April	1
May	3
June	7
July (next appointment)	?



If Floppy's weight increases by 30% before his next visit in July, how much will he weigh? Show or explain your thinking in the space below.

ALL LEVELS

Graph it Out

Now it's your turn to collect data and make a graph!

Material Suggestions

- ◯ Markers or Crayons
- ◯ Graph Paper
- ◯ Pencil

Directions

Use the chart below to collect data about a topic of your choice. This can be heights of your stuffed animals, how much you've grown from year to year, or the different heights of your family and friends.

Label the top row of each column with what you'll record there. For example, you might label the first column Animal and the second column Height if you are going to measure animals.

Once you've collected your data, make your own bar graph on a piece of graph paper to share it.

ALL LEVELS

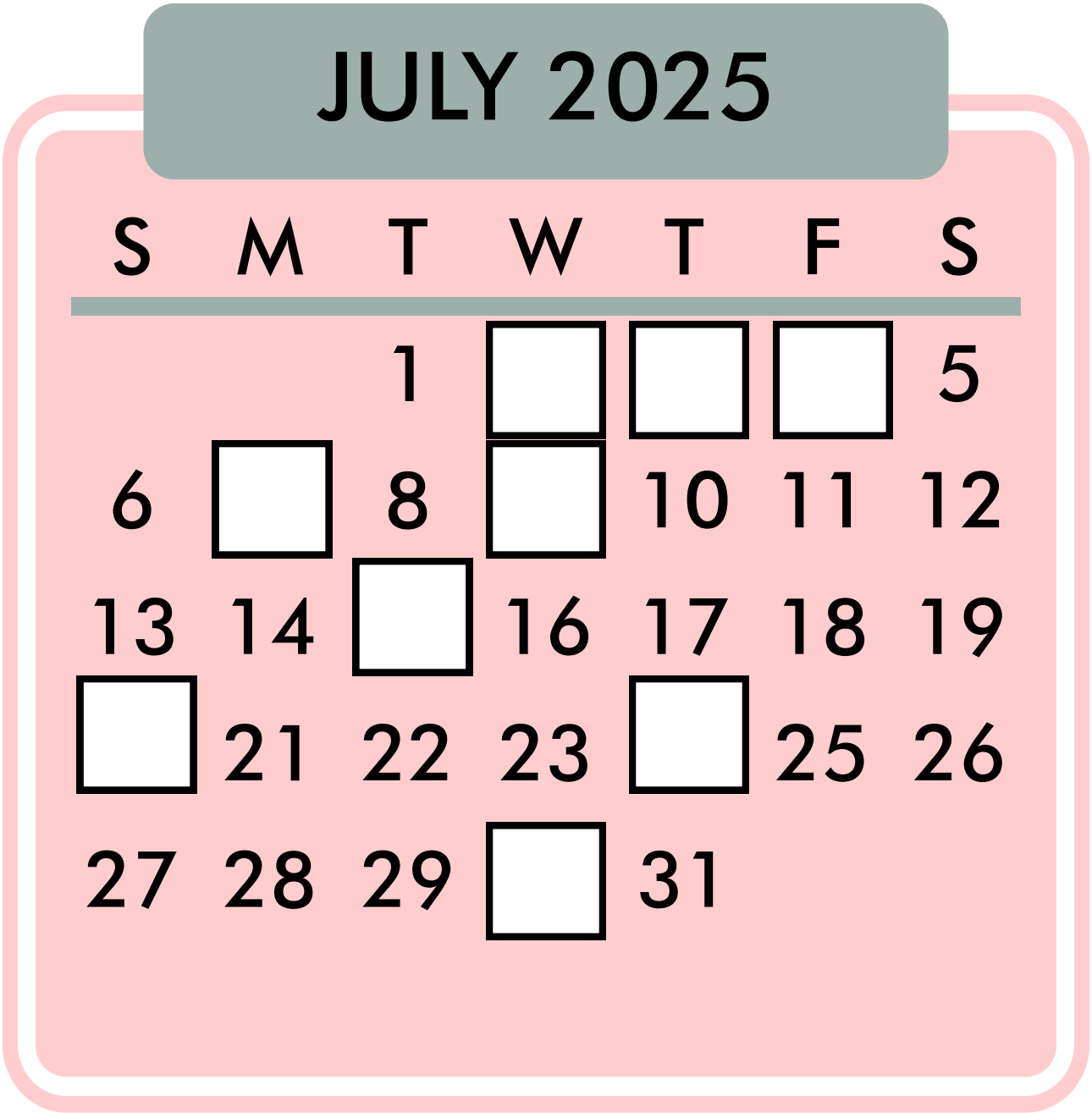
Operation: Pawfect Planner!

Congratulations, Doctor! You've done an amazing job caring for our furry patients. But our work isn't over yet – it's time for some scheduling magic! Each of our animal friends needs a follow-up appointment, and it's up to you to find the perfect time that works for both the pet owners and our busy clinic. Can you juggle the vet's recommendations and the owners' schedules to book everyone's next visit? It's like solving a fun puzzle to make sure all our patients get the care they need. Let's flex those planning muscles and become the ultimate appointment wizard!

PRIMARY

Directions

Oh, no! Parts of the calendar are missing! Can you fill in the missing numbers so we know when our pet patients are coming back?



POST-PRIMARY

Directions

Before the pets can go home, you are in charge of booking follow-up appointments. Each pet's owner gives you clues about their availability, such as which days or time periods will not work. Use these clues along with a calendar to schedule the correct appointment day and time. Write each pet's name in the correct spot on the calendar.

"Whiskers is only available on Monday or Thursday, and it must be in the afternoon."

"Edison can only come on Thursday or Friday, and we're only free in the afternoons."

"Floppy can only come on Monday or Friday, and we absolutely need an afternoon appointment."

	Monday	Tuesday	Wednesday	Thursday	Friday
AM					
PM					

COMPREHENSIVE

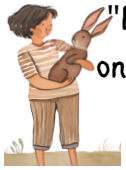
Directions

Now it's time to schedule follow-up appointments for our furry friends. You'll book slots for Floppy, Whiskers, Edison, and three new pets over the phone. Each owner will give you clues about when they're available. Use these hints to find the perfect time for each pet. Write each pet's name in the right spot on the calendar.

	Monday	Tuesday	Wednesday	Thursday	Friday
AM					
PM					

"Whiskers requires an afternoon appointment this week. We can come on Monday, Wednesday, or Friday."

"Edison is available any weekday, morning or afternoon, except Wednesday."



"Floppy needs a morning slot. We're free on Tuesday, Wednesday, or Thursday."

"Hopper needs a morning appointment. We can come any day except Monday and Friday."

"Mittens can only do afternoons. We're free on Tuesday or Thursday."

"Buddy is flexible with mornings or afternoons, but can only come on Monday, Tuesday, or Friday."

Other things to consider:

- The vet clinic is open Monday to Friday, with one morning and one afternoon slot each day.
- Rabbits and cats cannot be scheduled on the same day.
- Dogs must be scheduled after cats if they're on the same day.
- The clinic prefers not to schedule two of the same type of animal on the same day.

ALL LEVELS

Create a Calendar

Scheduling things can be a real challenge. Fill out the calendar below with all of the things you and your family plan to do this month. Keep an eye out for conflicting activities!

ALL LEVELS

Settling the Bill

Alright, Doctor, it's time to wrap up our furry friends' visits! We've measured them, given them medicine, and predicted their growth. Now comes the important job of totaling up their bills. Each pet needs to pay for their medicine, the vet visit, and a special item they're taking home (like a new toy, treat, or food!). Can you add up all these charges to find out how much each pet owner needs to pay? Remember, being a great vet means taking care of animals AND managing the clinic's finances. Let's make sure our animal pals get everything they need while keeping our clinic running smoothly!

PRIMARY

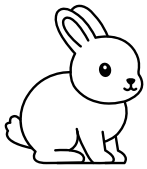
Directions

Help make the pet bill for each animal visiting the clinic. Your job is to add up the costs for the office visit and medicine.

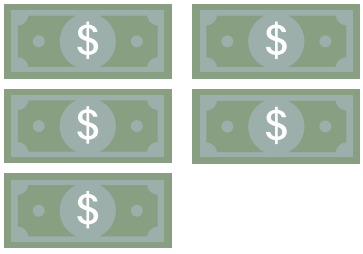
WRITE **the total.**

Visit

Medicine



Visit



Medicine

Visit

Medicine

Directions

You are responsible for calculating the bill for each animal patient. Each bill includes the cost for medicine (based on the amount given), , an office visit charge based on size, and the cost for specialized food based on the animal type.

Goods and Services	Cost
Office Visit Under 10 lbs	$45
Office Visit 10 lbs or more	$67
Medication	$5 per mL given
Puppy food	$27
Bunny food	$22
Kitten Food	$39

Use the prices listed on the chart to fill out the bills for each pet and find the total cost.

FINAL BILL
Patient: Whiskers

Office Visit: _____
Medicine: _____
Kitten Food: _____

Total Due: _____

FINAL BILL
Patient: Floppy

Office Visit: _____
Medicine: _____
Bunny Food: _____

Total Due: _____

FINAL BILL
Patient: Edison

Office Visit: _____
Medicine: _____
Puppy Food: _____

Total Due: _____

COMPREHENSIVE

Directions

You are responsible for calculating the bill for each animal patient. Each bill includes the cost for medicine (based on the amount given), , an office visit charge based on size, and the cost for specialized food based on the animal type.

Goods and Services	Cost
Office Visit Under 10 lbs	$38.50
Office Visit 10 lbs or more	$49.75
Medication	$1.50 per mL given
Puppy food	$27.99
Bunny food	$22.25
Kitten Food	$39.75

Use the prices listed on the chart to fill out the bills for each pet and find the total cost.

FINAL BILL
Patient: Whiskers

Office Visit: _____
Medicine: _____
Kitten Food: _____

Total Due: _____

FINAL BILL
Patient: Floppy

Office Visit: _____
Medicine: _____
Bunny Food: _____

Total Due: _____

FINAL BILL
Patient: Edison

Office Visit: _____
Medicine: _____
Bunny Food: _____

Total Due: _____

ALL LEVELS

Total the Bill IRL

Next time you go shopping, try keeping a running total of what you're buying.

Primary:

Count how many items you add to the basket.

Post-Primary:

Round the price of each item to the nearest whole dollar and add up the prices as you go.

Comprehensive:

Take a notepad and add up the prices of each item as you go. Want an even bigger challenge? Ask your grown-up what the sales tax in your area is and try to include that in your total.

Another idea:

If you're in a hurry at the store, let littles unpack and count items when you get home. For bigger kids, cut the total off the receipt and let them try to add it up on their own.

Congratulations, you did it!

Wow, what an amazing day at WonderHere Creature Care Center! You've truly earned your veterinarian stripes today, Dr. Superstar! From measuring our furry friends to giving out just the right amount of medicine, predicting their growth, juggling appointment schedules, and even handling the bills - you've done it all with flying colors.

Thanks to your expert care and math skills, our animal pals are healthier, happier, and ready to wag their tails (or twitch their whiskers) with joy. You're not just a vet, you're a math whiz and an animal hero! Great job, and we can't wait to see you at the clinic again soon!

Primary Answer Keys

Task 1

Bunny is glued into small cage.
Kitten is glued into medium cage.
Puppy is glued into large cage.

Check that each cage is labeled correctly.

Task 2

5 drops
2 drops
7 drops

Task 3

The amounts colored in on the graphs for July are:
Bunny: 4 shaded
Kitten: 8 shaded
Puppy: 12 shaded

Task 4

The missing numbers are 2, 3, 4, 7, 9, 15, 20, 24, 30

Task 5

Kitten = 4
Bunny = 7
Puppy = 9

Post-Primary Answer Keys

Task 1

Whiskers = 12 inches
Floppy = 6 inches
Edison = 24 inches

Task 2

Whiskers = 4 mL
Floppy = 28 mL
Edison = 75 mL

Task 3

Edison = 22 lbs
Whiskers = 4 lbs
Floppy = 10 lbs

Task 4

Whiskers: Monday PM
Floppy: Friday PM
Edison: Thursday PM

Task 5

Whiskers = $104
Floppy = $207
Edison = $469

Comprehensive Answer Keys

Task 1

Whiskers = 1 foot
Floppy = ½ foot
Edison = 2 feet

Task 2

Whiskers = 0.6 mL
Floppy = 8.4 mL
Edison = 37.5 mL

Task 3

Edison = 18 lbs
Whiskers = 3 lbs
Floppy = 9.1 lbs

Task 4

Whiskers: Monday PM
Floppy: Tuesday AM
Edison: Monday AM
Hopper: Wednesday AM
Buddy: Friday PM
Mittens: Tuesday PM

Task 5

Whiskers = $79.15
Floppy = $73.35
Edison = $133.99

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