

Pet Shop Real Life Problem Solving

National Curriculum Objectives:

Mathematics Y3: Interpret and present data using bar charts, pictograms and tables. [More resources with this objective.](#)

Mathematics Y3: Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. [More resources with this objective.](#)

Mathematics Y4: Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. [More resources with this objective.](#)

Mathematics Y4: Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. [More resources with this objective.](#)

Mathematics Y5: Solve comparison, sum and difference problems using information presented in a line graph. [More resources with this objective.](#)

Mathematics Y5: Complete, read and interpret information in tables, including timetables. [More resources with this objective.](#)

Mathematics Y6: Interpret and construct pie charts and line graphs and use these to solve problems. [More resources with this objective.](#)

Mathematics Y6: Calculate and interpret the mean as an average. [More resources with this objective.](#)

Differentiation:

Beginner Interpret a simple bar chart and answer 5 questions. Use given information to complete a table and a bar chart. Aimed at Year 3 Secure/Year 4 Emerging.

Easy Interpret a simple bar chart and answer 7 questions. Use given information to fill in a table and complete a bar chart. Aimed at Year 4 Secure/Year 5 Emerging.

Tricky Use given information to complete a table and bar chart. Interpret a line graph and use it to fill in a table. Find totals of sets of five numbers and answer three questions. Aimed at Year 5 Secure/Year 6 Emerging.

Expert Fill in missing data on three pie charts and a table. Answer three questions. Use information in table to complete line graph. Find averages of sets of five numbers and answer two questions. Aimed at Year 6 Secure.

Did you like this resource? Don't forget to review it on our website.

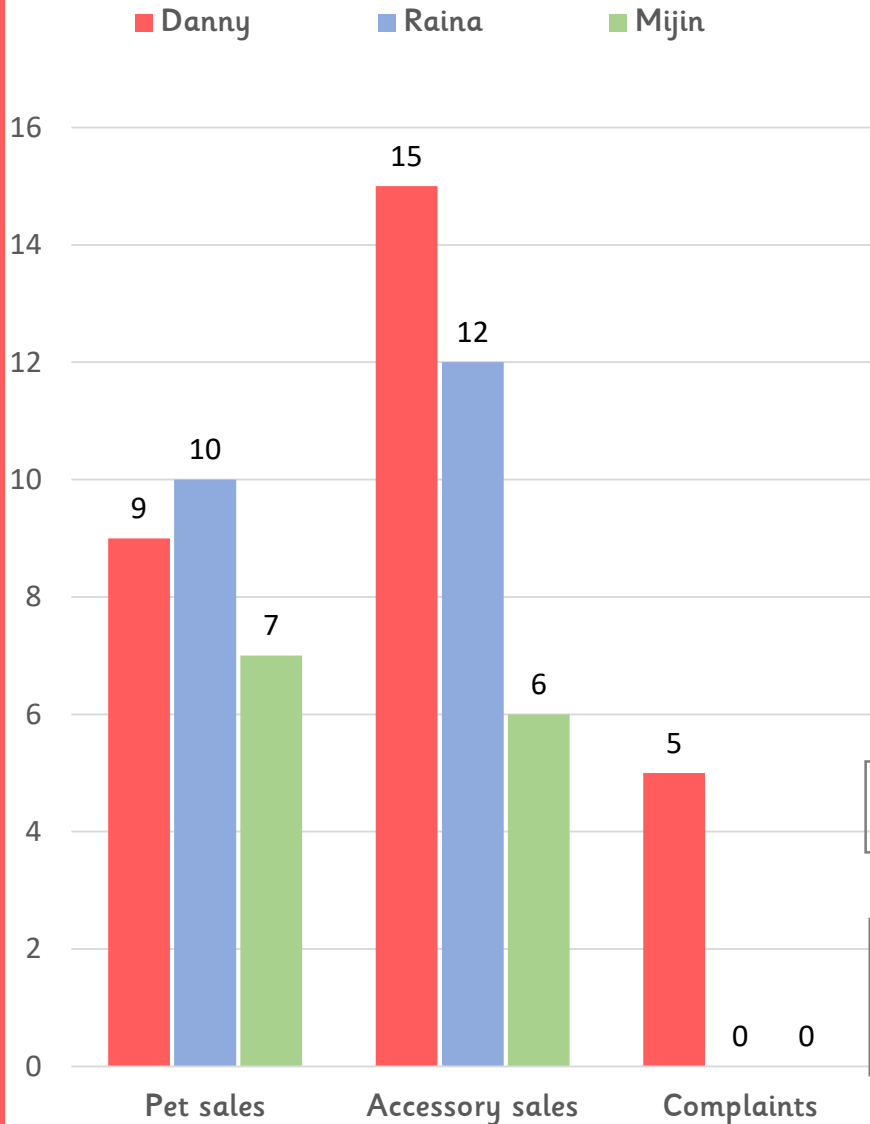
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Pet Shop Real Life Problem Solving – Teaching Information

Like this? Find more differentiated problem solving resources [here](#).

Pet Shop Real Life Problem Solving

March



As the owner of a popular pet shop, it is your job to pick the employee of the month. This should be someone who offers exceptional service to customers, makes great sales, and truly cares for the animals in the shop. Business owners often use data to help them make important decisions.

Who sold the most pet accessories in March?

Read the chart. Put the employees in order from most to least pet sales.

Which employee received the most complaints?

Which employee did not receive any complaints?

Who would you choose as employee of the month? Why?

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Pet Shop Real Life Problem Solving – Beginner

Pet Shop Real Life Problem Solving

Read the sales report and use it to fill in the table.

Pet Sales: Autumn Quarter

September was a busy month for goldfish, with 8 sales in 30 days. Hamsters were also popular, as 6 were sold as class pets. Snake sales were low at 2 this month.

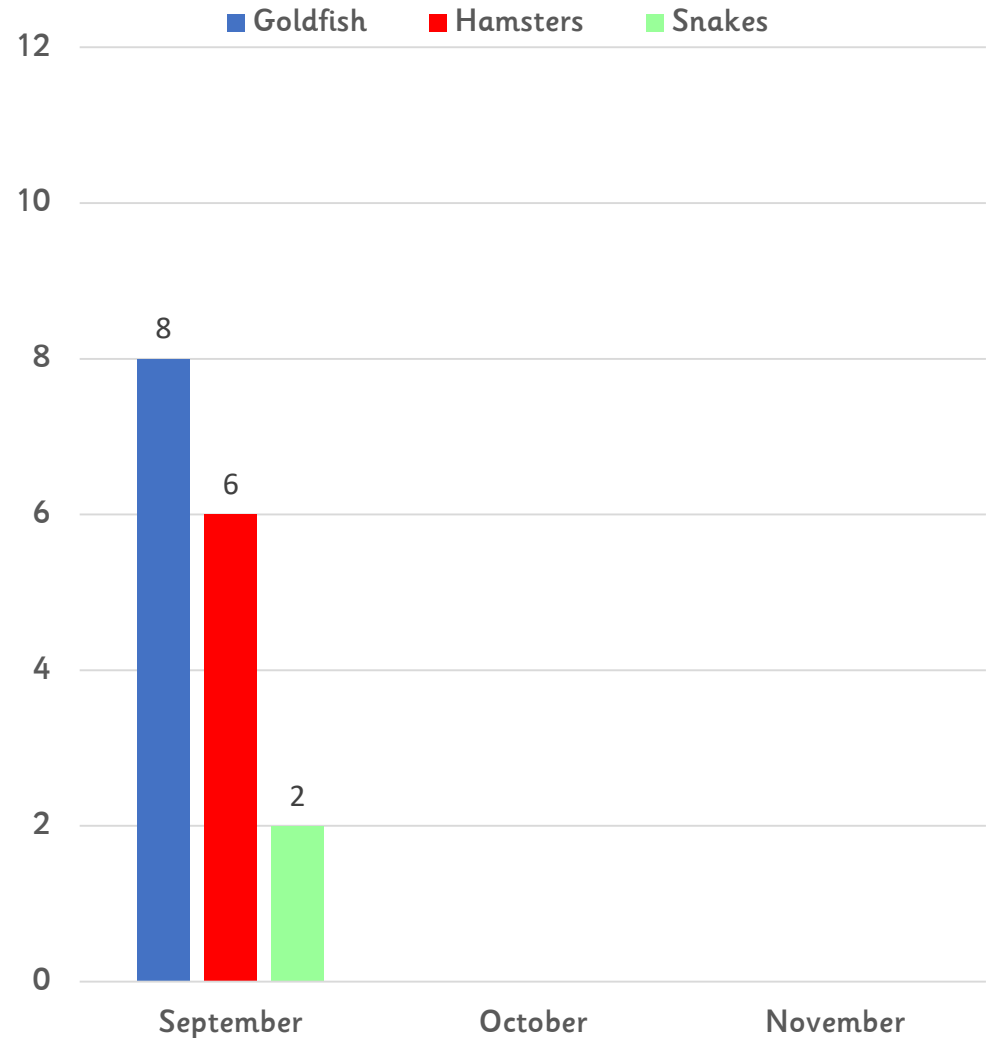
Hamster sales in October improved, with 9 sales. Goldfish sales rose to 10. Snake sales doubled this month!

Goldfish sales dropped back to 8 in November. Hamster sales dropped by 1, and snake sales dropped back down to 2 by the end of the month.

	Goldfish	Hamsters	Snakes
September	8	6	2
October			
November			

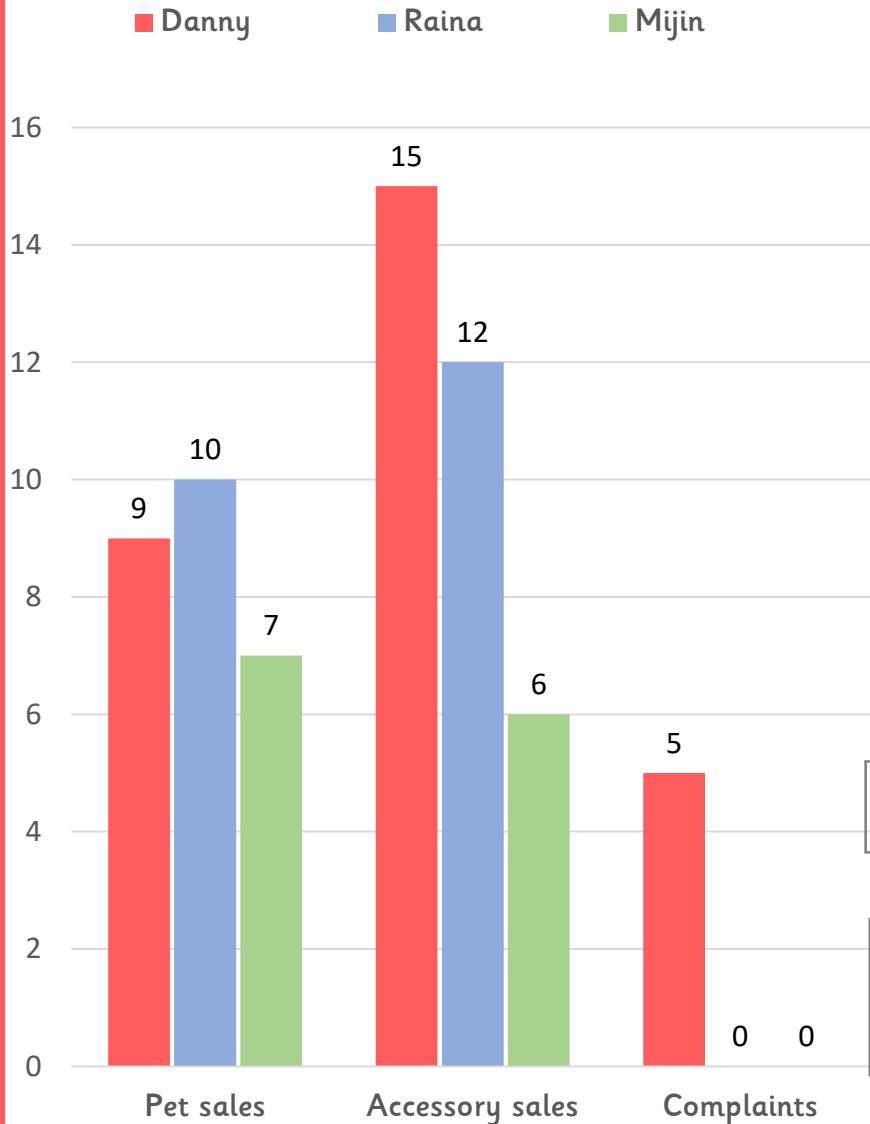
Now use the information from the table to fill in the bar graph.

Autumn Quarter Sales



Pet Shop Real Life Problem Solving

March



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Who sold the most pet accessories in March?

Danny sold 15 pet accessories.

Read the chart. Put the employees in order from most to least pet sales.

Raina, Danny, Mijin

Which employee received the most complaints?

Danny

Which employee did not receive any complaints?

Neither Raina nor Mijin received any complaints

Who would you choose as employee of the month? Why?

Danny has the best sales, but has also gotten 5 complaints. Neither Raina nor Mijin have gotten complaints, but Raina has more sales. Raina is employee of the month.

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Pet Shop Real Life Problem Solving – Beginner **ANSWERS**

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Pet Shop Real Life Problem Solving

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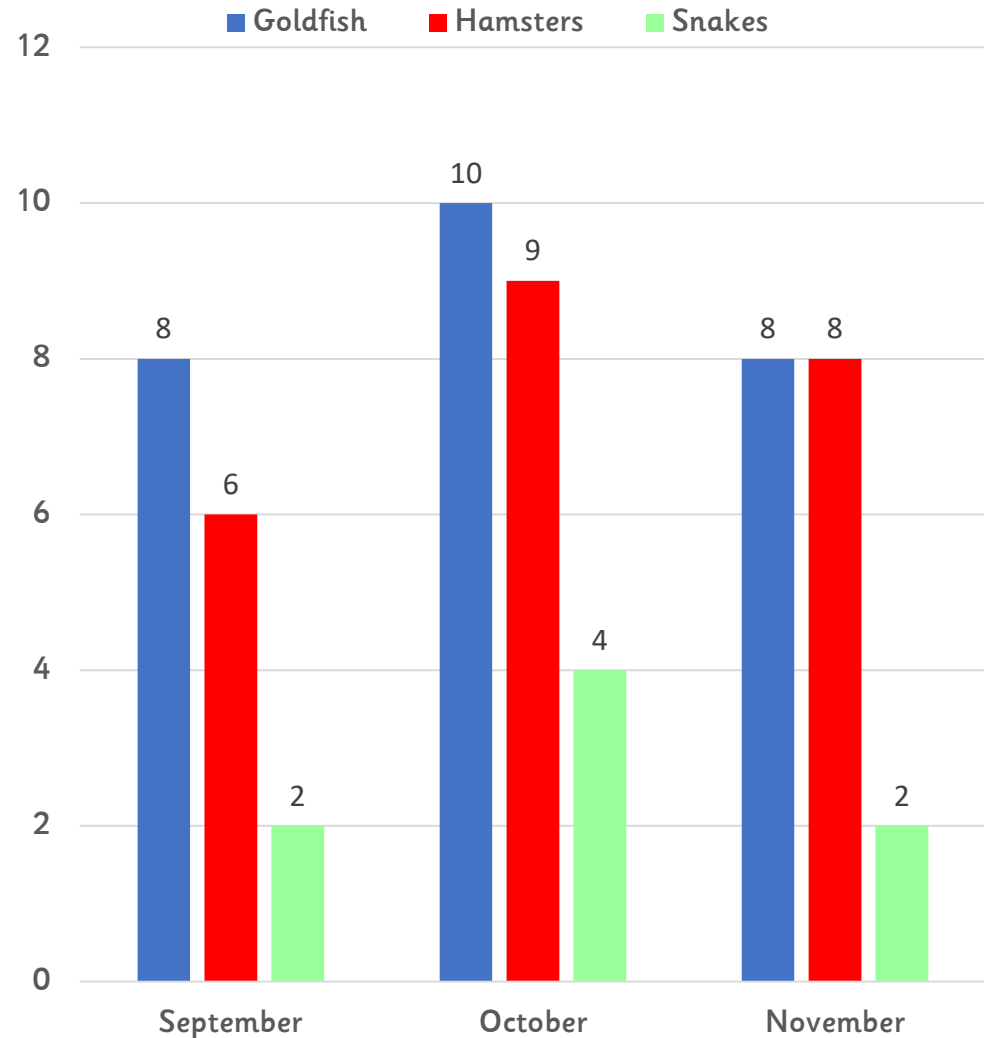
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Goldfish sales dropped back to 8 in November. Hamster sales dropped by 1, and snake sales dropped back down to 2 by the end of the month.

	Goldfish	Hamsters	Snakes
September	8	6	2
October	10	9	4
November	8	8	2

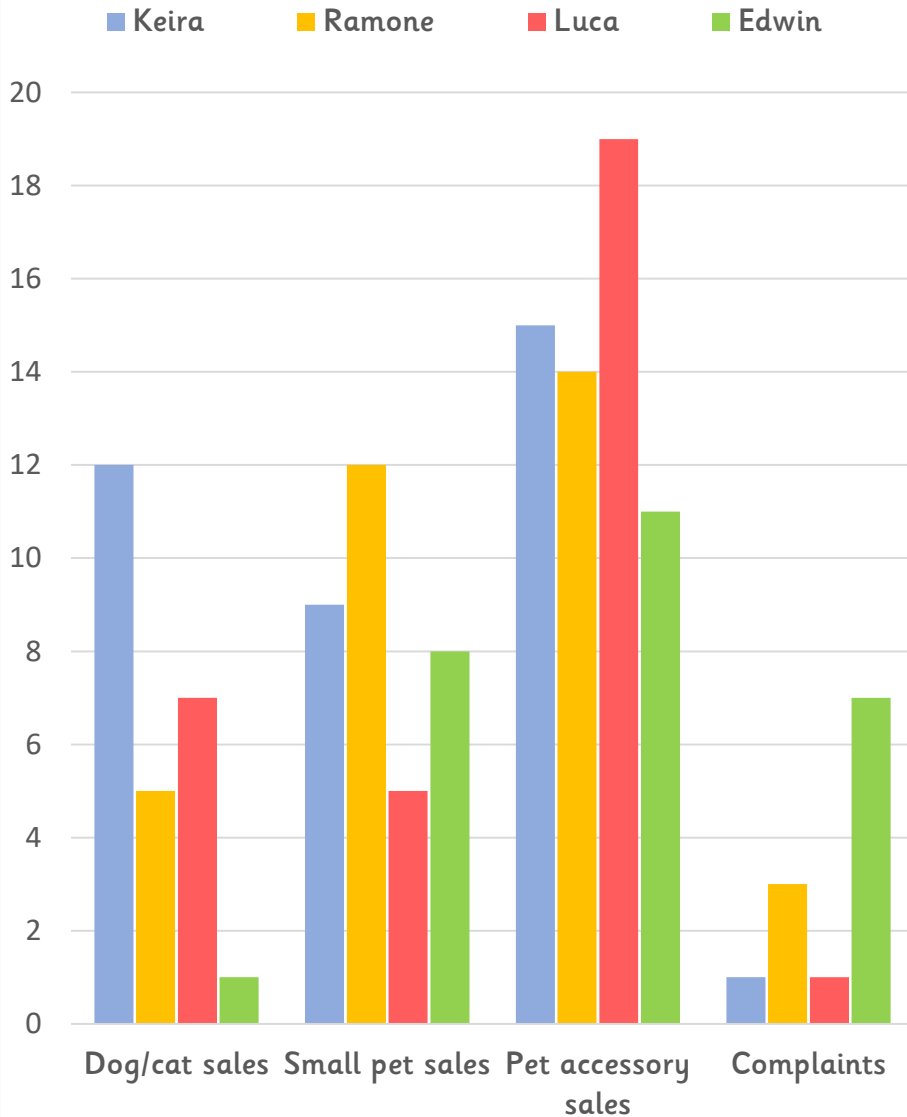
Now use the information from the table to fill in the bar graph.

Autumn Quarter Sales



Pet Shop Real Life Problem Solving

January



As the owner of a popular pet shop, it is your job to pick the employee of the month. This should be someone who offers exceptional service to customers, makes great sales, and truly cares for the animals in the shop. Business owners often use data to help them make important decisions.

What is the difference between Keira and Edwin's accessory sales?

What is the total number of pets Ramone sold in January?

How many more pet accessories has Luca sold than Edwin?

Based on the data, who needs to improve their customer service?

Who has sold the most pets in total? Who has sold the least?

How many complaints have been made in total?

Who would you choose as the employee of the month? Why?

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Pet Shop Real Life Problem Solving – Easy

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Pet Shop Real Life Problem Solving

Read the sales report and use it to fill in the table.

Pet Sales: Summer Quarter

June was a busy month for puppies, with 18 sales in 30 days. Hamsters were popular as well, as 14 were sold as class pets. Cat and rabbit sales were down with 4 of each throughout the month.

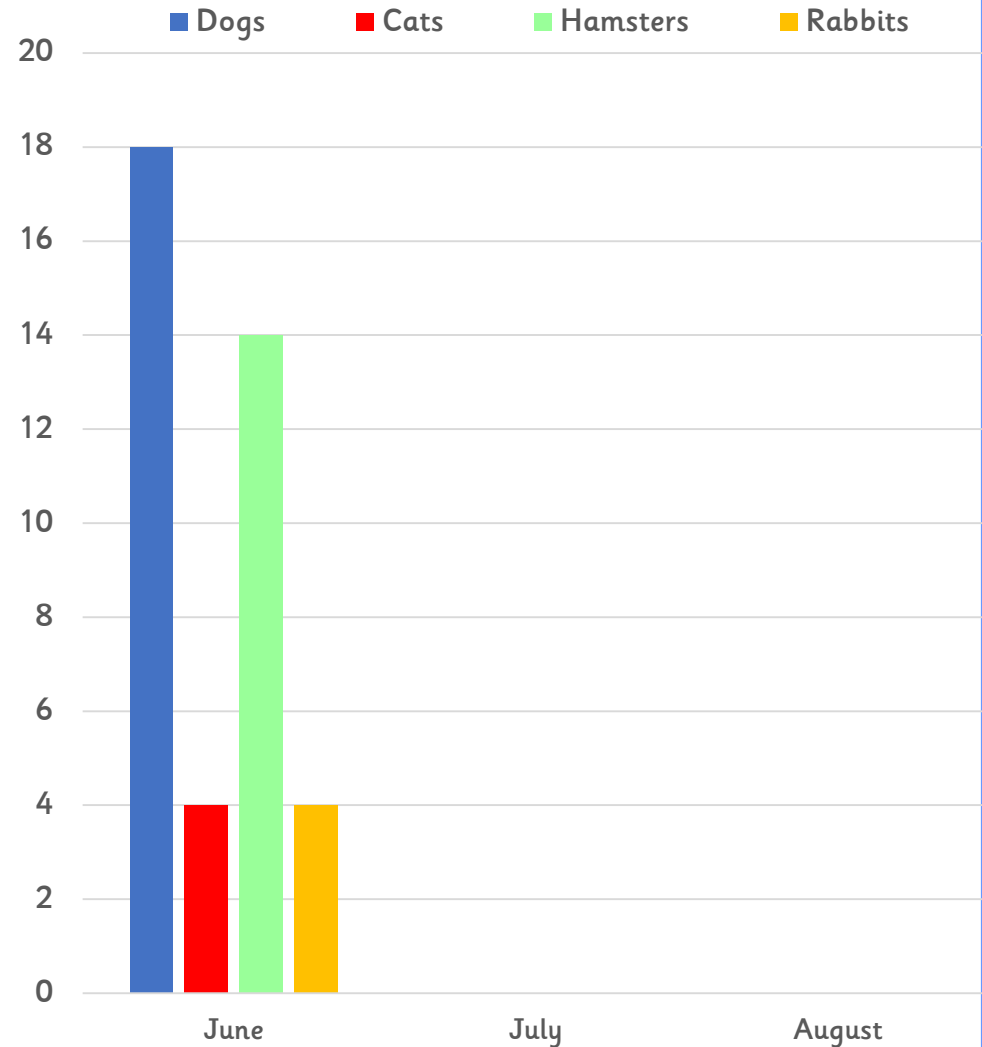
Cat sales in July improved, with 18 sales. Puppy sales dropped to 12, and rabbit and hamster sales were steady, both staying the same as last month.

Dog sales dropped to 9 in August. Cat sales remained the same, and hamster sales dropped to 5. Rabbit sales improved slightly, increasing by 2.

	Dogs	Cats	Hamsters	Rabbits
June				
July				
August				

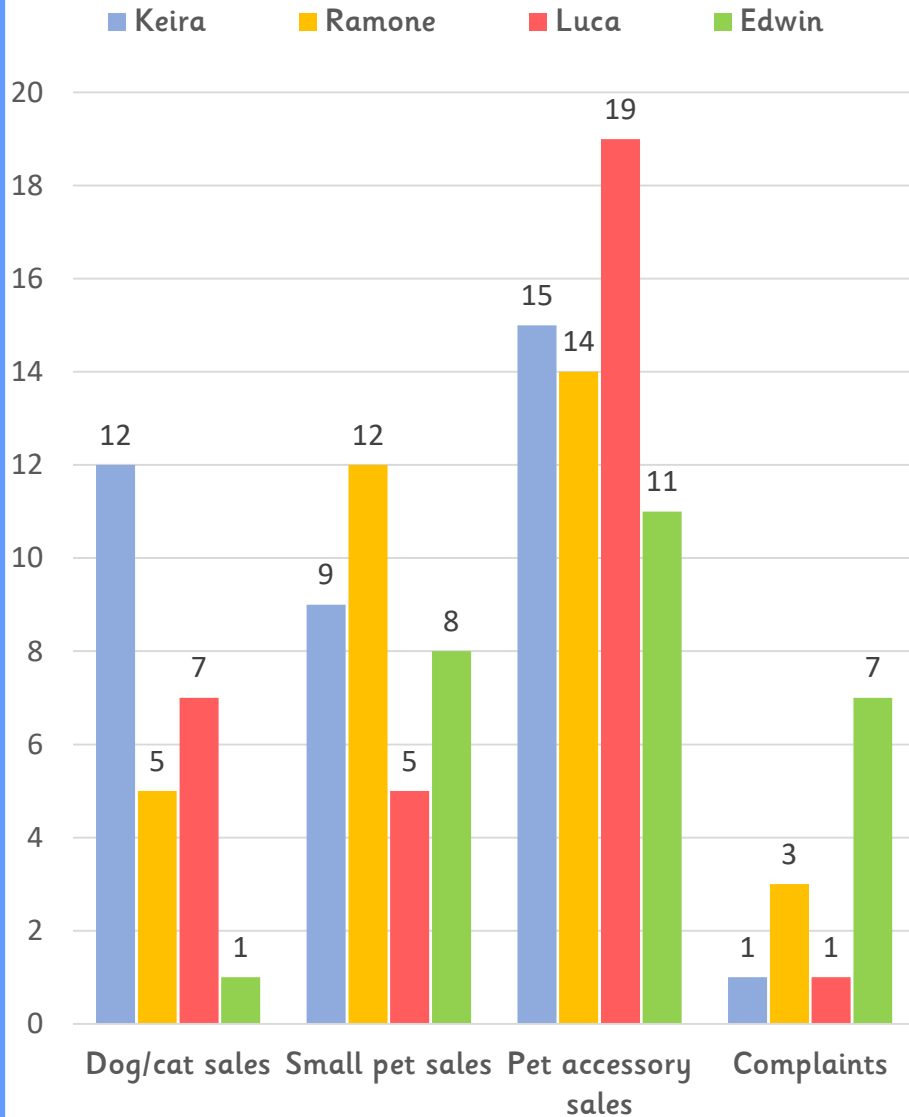
Now use the information from the table to fill in the bar graph.

Pet Sales: Summer Quarter



Pet Shop Real Life Problem Solving

January



As the owner of a popular pet shop, it is your job to pick the employee of the month. This should be someone who offers exceptional service to customers, makes great sales, and truly cares for the animals in the shop. Business owners often use data to help them make important decisions.

What is the difference between Keira and Edwin's accessory sales?

$15 - 11 = 4$. Keira sold 4 more pet accessories than Edwin.

What is the total number of pets Ramone sold in January?

$5 + 12 = 17$ pets

How many more pet accessories has Luca sold than Edwin?

$19 - 11 = 8$ more pet accessories

Based on the data, who needs to improve their customer service?

Edwin – he has had 7 complaints.

Who has sold the most pets in total? Who has sold the least?

Keira has sold 21 pets. Edwin has sold 9 pets.

How many complaints have been made in total?

12

Who would you choose as the employee of the month? Why?

Keira would be employee of the month, because she has made the most sales, and received only one complaint.

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Pet Shop Real Life Problem Solving – Easy ANSWERS

Like this? Find more differentiated problem solving resources [here](#).

Pet Shop Real Life Problem Solving

Read the sales report and use it to fill in the table.

Pet Sales: Summer Quarter

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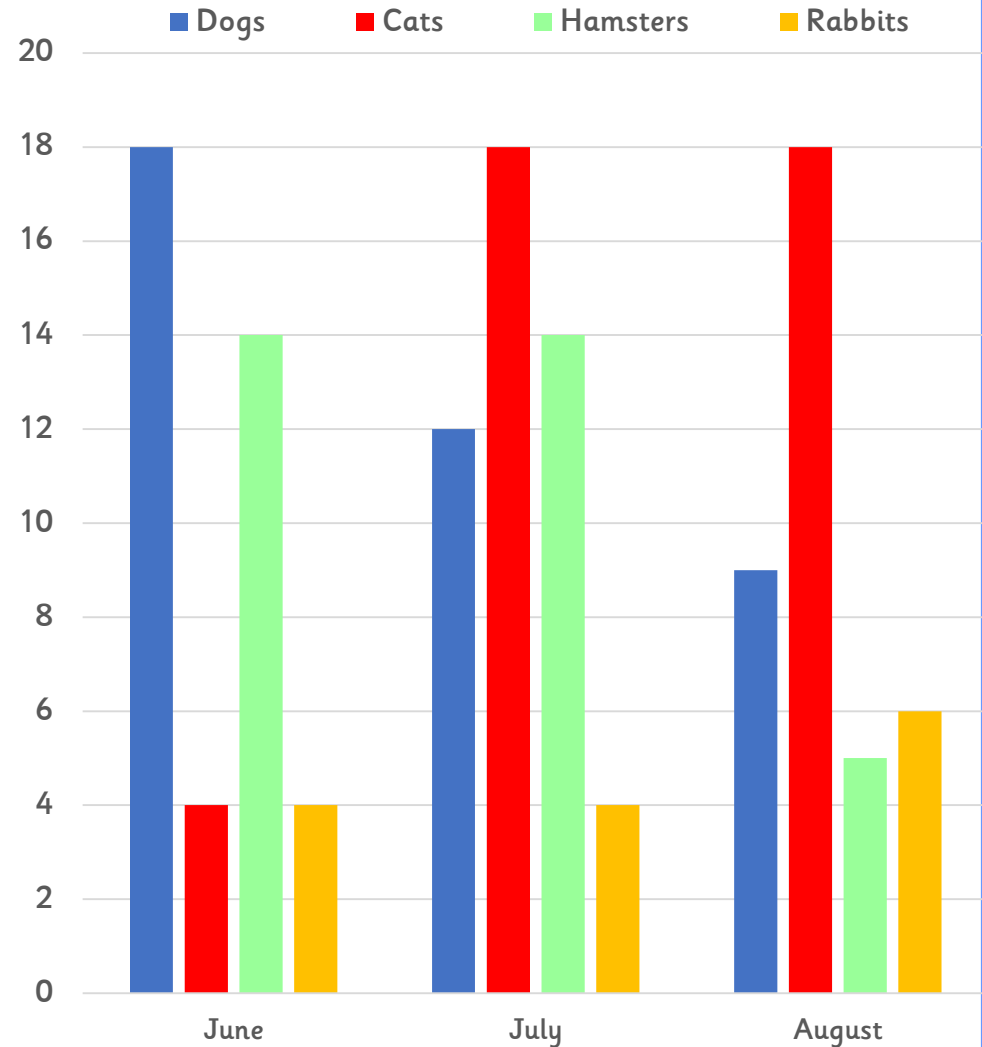
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Dog sales dropped to 9 in August. Cat sales remained the same, and hamster sales dropped to 5. Rabbit sales improved slightly, increasing by 2.

	Dogs	Cats	Hamsters	Rabbits
June	18	4	14	4
July	12	18	14	4
August	9	18	5	6

Now use the information from the table to fill in the bar graph.

Pet Sales: Summer Quarter



Pet Shop Real Life Problem Solving

One of the pet shop's best customers is a vet who specialises in dog care. Read the order and use it to fill in the table.

Dear Manager,

This was a very busy month compared to January and February! I saw lots of different kinds of dogs.

Twin German Shepherds came in with a cold and they were very hungry. I need 16 bags of food to restock my shelves. I have already used all 10 from last month!

Last month, I only needed half as many chew toys as I ordered in January, but I still haven't used any of them. So please do not send me any more of these just yet.

One poodle played with a hedgehog and was a bit too friendly for his own good! Please can you send me triple the number of plasters I ordered in February?

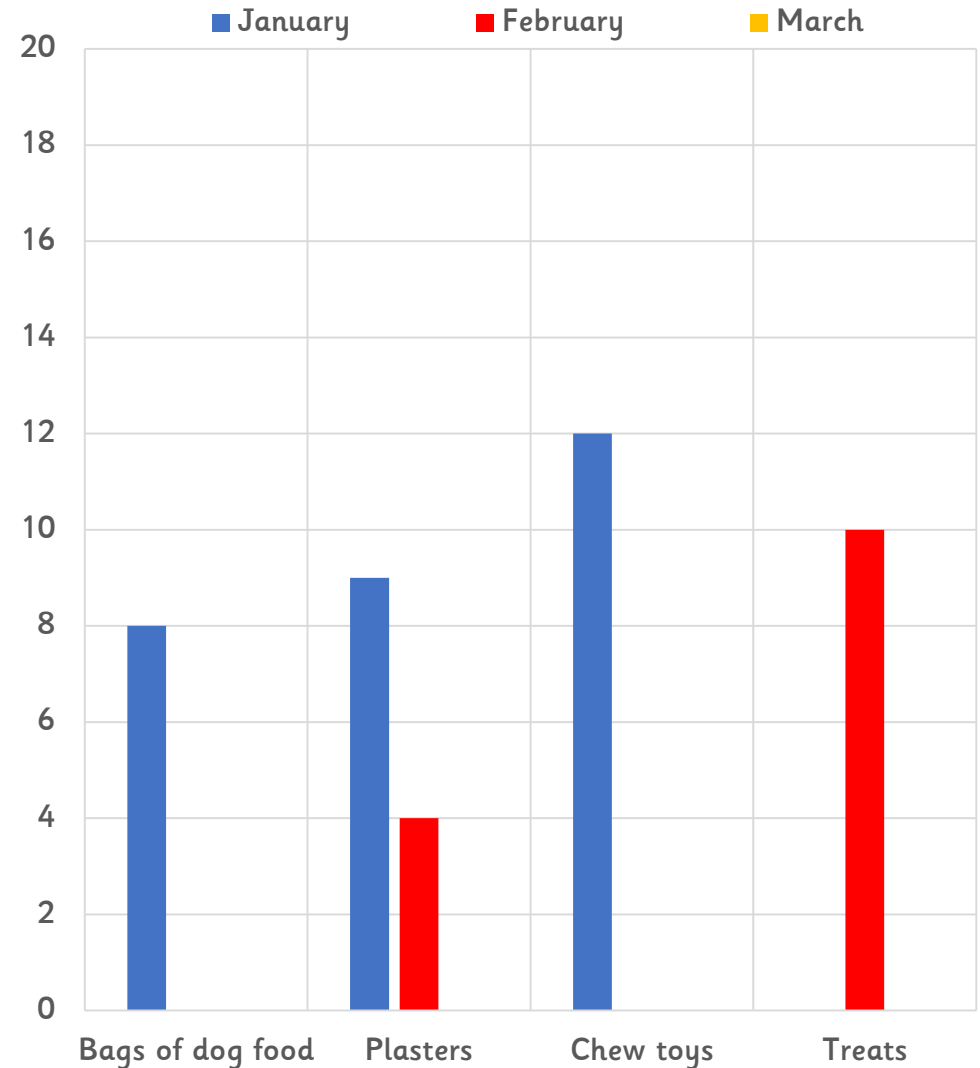
I know I doubled my January order, but all of the dogs were very friendly this month too -- please double my order for treats again! Thank you very much!

Vincent the Vet

	Bags of dog food	Plasters	Chew toys	Treats
January	8	9	12	
February		4		10
March				

Now use the information from the table to create a bar graph.

Vincent the Vet's Order History



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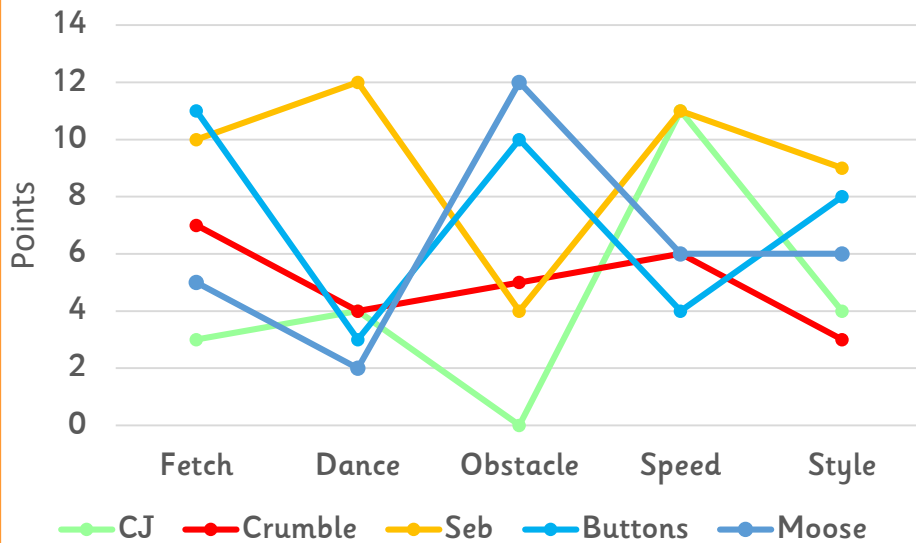
Pet Shop Real Life Problem Solving – Tricky

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Pet Shop Real Life Problem Solving

Every year, the pet shop sponsors a local dog show. As the pet shop manager, you organise the judges for the show. You have received the judges' scores on the line chart below for each of the five events. The winner is the dog with the most points in total. Use the line chart to help you fill in the table. When you have completed the table, answer the questions below.

Dog Show 2017



	CJ	Crumble	Seb	Buttons	Moose
Fetch					
Dance					
Obstacle					
Speed					
Style					
Total points					

Put the dogs in order of most to least total points.

Which dog scored the most points? Which dog scored the least points? What is the difference in their total points?

In which event were the most points handed out by the judges?

Pet Shop Real Life Problem Solving

One of the pet shop's best customers is a vet who specialises in dog care. Read the order and use it to fill in the table.

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Twin German Shepherds came in with a cold and they were very hungry. I need 16 bags of food to restock my shelves. I have already used all 10 from last month!

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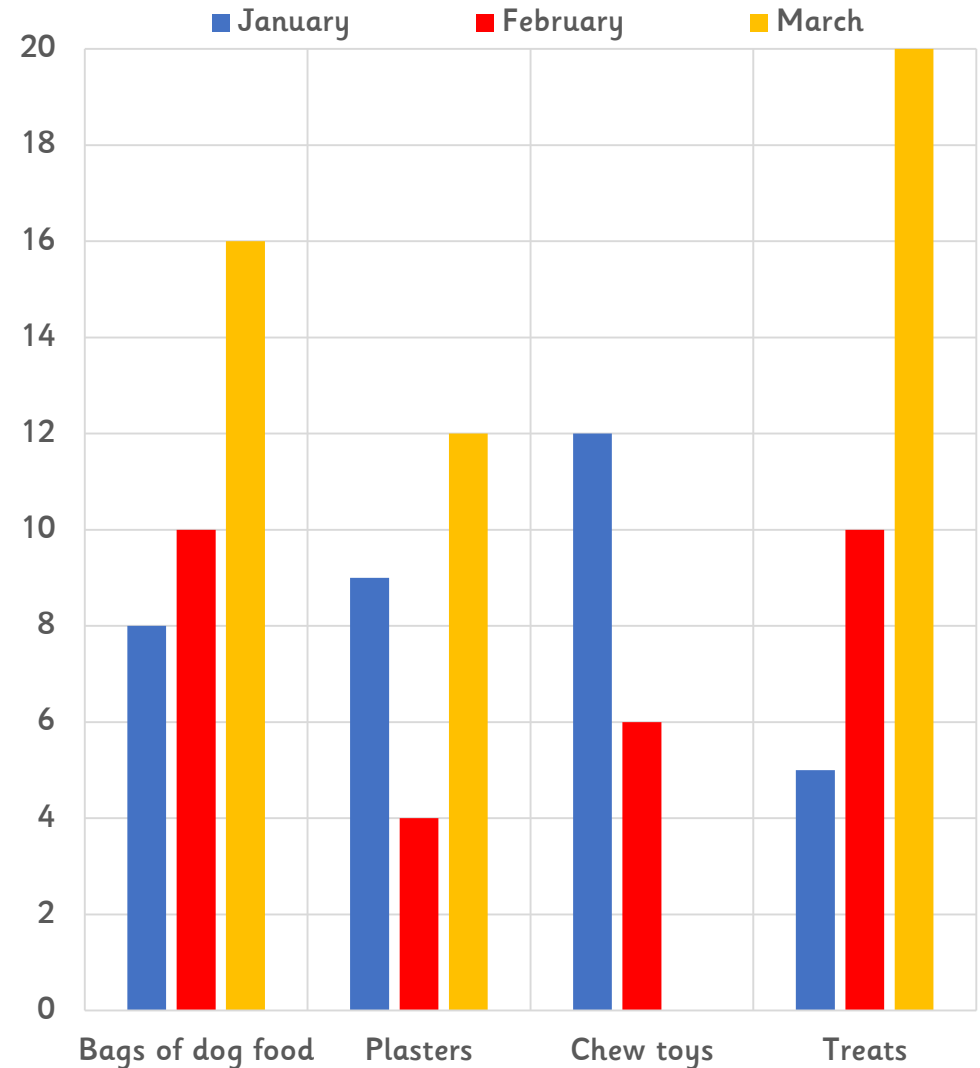
I know I doubled my January order, but all of the dogs were very friendly this month too -- please double my order for treats again! Thank you very much!

Vincent the Vet

	Bags of dog food	Plasters	Chew toys	Treats
January	8	9	12	5
February	10	4	6	10
March	16	12	0	20

Now use the information from the table to create a bar graph.

Vincent the Vet's Order History



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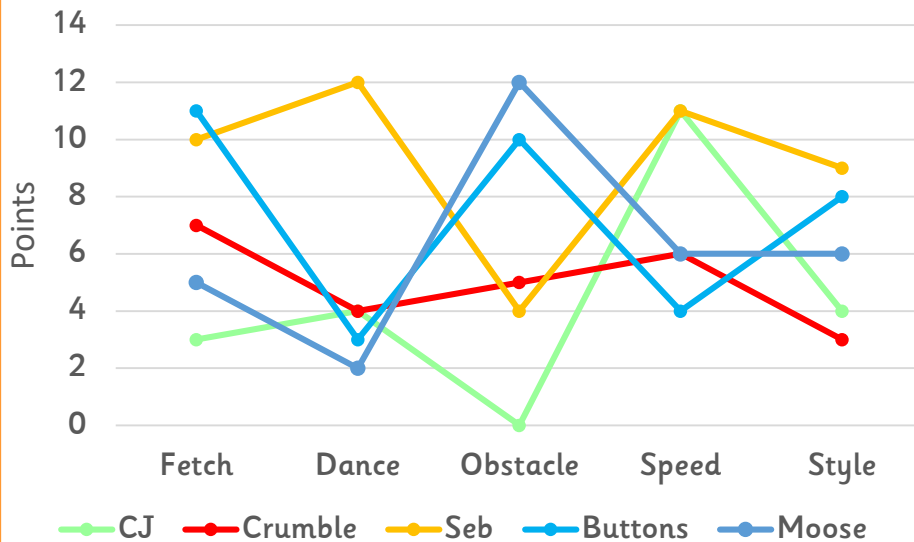
Pet Shop Real Life Problem Solving – Tricky ANSWERS

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Pet Shop Real Life Problem Solving

Every year, the pet shop sponsors a local dog show. As the pet shop manager, you organise the judges for the show. You have received the judges' scores on the line chart below for each of the five events. The winner is the dog with the most points in total. Use the line chart to help you fill in the table. When you have completed the table, answer the questions below.

Dog Show 2017



	CJ	Crumble	Seb	Buttons	Moose
Fetch	3	7	10	11	5
Dance	4	4	12	3	2
Obstacle	0	5	4	10	12
Speed	11	6	11	4	6
Style	4	3	9	8	6
Total points	22	25	46	36	31

Put the dogs in order of most to least total points.

Seb, Buttons, Moose, Crumble, CJ

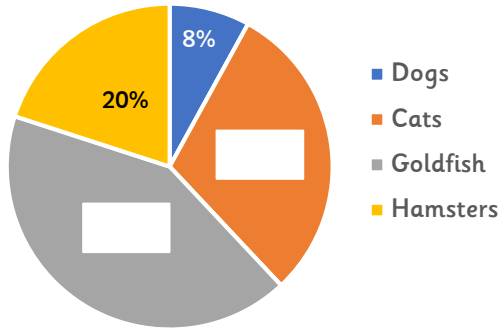
Which dog scored the most points? Which dog scored the least points? What is the difference in their total points?

Seb scored 46 points, CJ scored 22 points. $46 - 22 = 24$ points difference

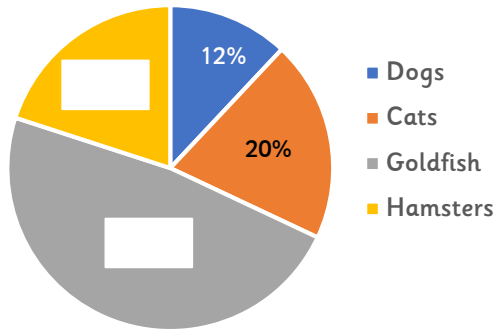
In which event were the most points handed out by the judges?

38 points were handed out for the 'speed' event.

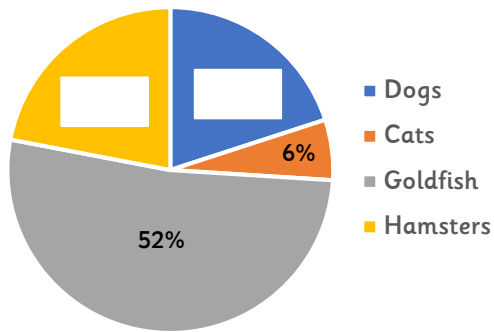
January Sales



February Sales



March Sales



Pet Shop Real Life Problem Solving

Fill in the missing percentages on each pie chart. Use the percentages from the pie charts to fill in the following table with the number of each animal sold. Find the average number of each animal sold per month.

	January sales	February sales	March Sales	Average
Dogs			10	
Cats	15			
Goldfish	21	48		
Hamsters		20	11	
Total	50	100	50	

Which is the best-selling animal? On average, how many of this animal were sold per month?

Which is a bigger number: 30% of 50 or 10% of 100? Why?

If a hamster costs £9, how much money did the shop make in hamster sales from January through March?

Pet Shop Real Life Problem Solving

Every year, the pet shop sponsors a local dog show. As the pet shop manager, you organise the judges for the show. You have received the judges' scores on the line chart below for each of the five events. The winner is the dog with the highest average score. Use the scores to help you complete the line chart, then answer the questions below.

	Bailey	Tucker	Duke	Mittens	Spot
Fetch	4	6.5	10	5.5	7
Dance	9.5	5	7.5	9.5	7
Obstacle	4.5	9	3	9	8.5
Speed	6	5	10	10	9.5
Style	7	7.5	2	9.5	8
Average score					

Dog Show 2017



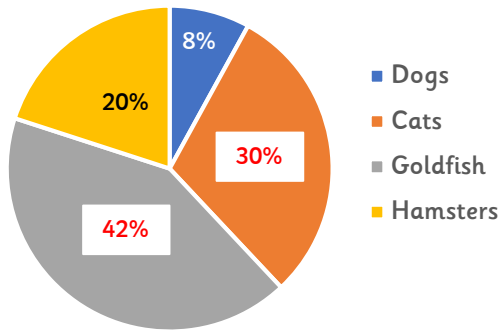
Put the dogs in order of highest to lowest average score:

Find the average score for each event:

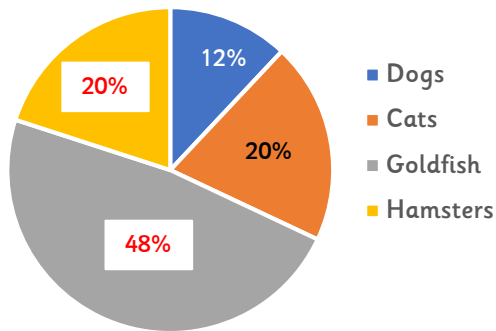
Fetch Dance Obstacle Speed

What event did the dogs do the best on? What event seemed to be the trickiest?

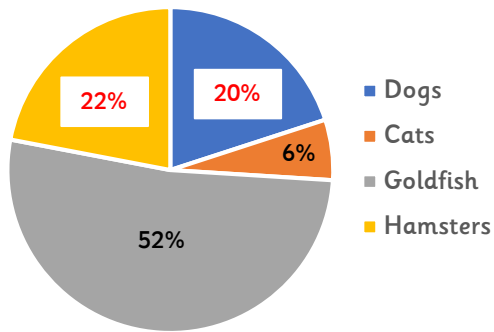
January Sales



February Sales



March Sales



Pet Shop Real Life Problem Solving

Fill in the missing percentages on each pie chart. Use the percentages from the pie charts to fill in the following table with the number of each animal sold. Find the average number of each animal sold per month.

	January sales	February sales	March Sales	Average
Dogs	4	12	10	8.67
Cats	15	20	3	12.67
Goldfish	21	48	26	31.67
Hamsters	10	20	11	13.67
Total	50	100	50	

Which is the best-selling animal? On average, how many of this animal were sold per month?

On average, 31.6 goldfish were sold per month.

Which is a bigger number: 30% of 50 or 10% of 100? Why?

30% of 50 is 15, 10% of 100 is 10. 30% of 50 is bigger.

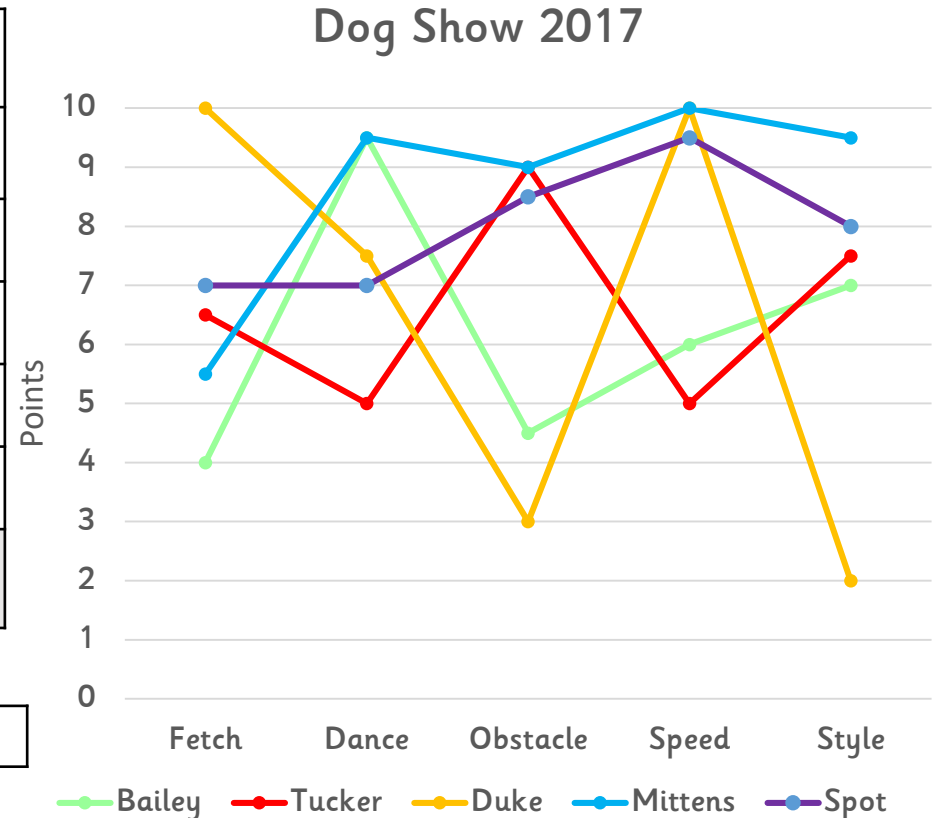
If a hamster costs £9, how much money did the shop make in hamster sales from January through March?

41 x 9 = £369 in hamster sales

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	Bailey	Tucker	Duke	Mittens	Spot
Fetch	4	6.5	10	5.5	7
Dance	9.5	5	7.5	9.5	7
Obstacle	4.5	9	3	9	8.5
Speed	6	5	10	10	9.5
Style	7	7.5	2	9.5	8
Average score	6.2	6.6	6.5	8.7	8



Put the dogs in order of highest to lowest average score:

Mittens, Spot, Tucker, Duke, Bailey

Find the average score for each event:

Fetch 6.6

Dance 7.7

Obstacle 6.8

Speed 8.1

Style 6.8

What event did the dogs do the best on? What event seemed to be the trickiest?

Speed got the highest average score, and Fetch got the lowest average score.