

REPRESENTING & INTERPRETING DATA

BAR GRAPHS & PICTOGRAPHS

3rd Grade

Directions: Create a bar graph to represent the data.

Tanner surveyed his classmates about their favorite ice cream topping. Their responses are on the clipboard. Plot the data on the graph below to show how many students prefer each topping.

Topping	# of students
Sprinkles	16
Whipped cream	10
Peanuts	7
Cherry	3

FAVORITE ICE CREAM TOPPING

NUMBER OF STUDENTS

FAVORITE DESSERTS

Y-axis label

NUMBER OF STUDENTS

cake

data category

REPRESENTING & INTERPRETING DATA

favorite animal bar graph

Directions: Marina asked her classmates what their favorite animal is. Use the information on the bar graph to answer the questions.

FAVORITE ANIMAL

NUMBER OF STUDENTS

Cat Dog Bird Fish

ANIMAL

- 1 What is the class' favorite animal?
- 2 What is the class' least favorite animal?
- 3 How many more students like cats than birds?

REPRESENTING favorite

Directions: Marina asked her classmates the bar graph to answer the questions.

FAVORITE ANIMAL

NUMBER OF STUDENTS

Cat Dog Bird Fish

ANIMAL

- 1 What is the class' favorite animal?
- 2 What is the class' least favorite animal?
- 3 How many more students like cats than birds?

FAVORITE SEASON

Winter	☆ ☆
Spring	☆ ☆ ☆
Summer	☆ ☆ ☆ ☆
Autumn	☆ ☆ ☆

☆ = 10 people

data categories



NAME: _____

REPRESENTING & INTERPRETING DATA

favorite animal bar graph

Directions: Marina asked her classmates what their favorite animal is. Use the bar graph to answer the questions.

FAVORITE ANIMAL

Animal	Number of Students
Cat	10
Dog	15
Ant	5

REPRESENTING & INTERPRETING DATA

crayons pictograph

Directions: Georgette is sorting a bucket of crayons by color. Use the information on the pictograph to answer the questions.

COLORS OF CRAYONS

Color	Number of Crayons
Green	2
Blue	5
Red	4
Yellow	3
Purple	2

1 pictograph = 4 crayons

- How many fewer yellow crayons are there than blue? _____
- How many crayons are not green? _____
- How many crayons are there in total? _____

parts of a BAR GRAPH

FAVORITE DESSERTS

Y-axis label: NUMBER OF STUDENTS

Dessert	Number of Students
Ice Cream	30
Cake	20

parts of a PICTOGRAPH

FAVORITE SEASONS

Season	Number of Students
Winter	10
Spring	15
Summer	20
Autumn	5

NAME: _____

REPRESENTING & INTERPRETING DATA

graph

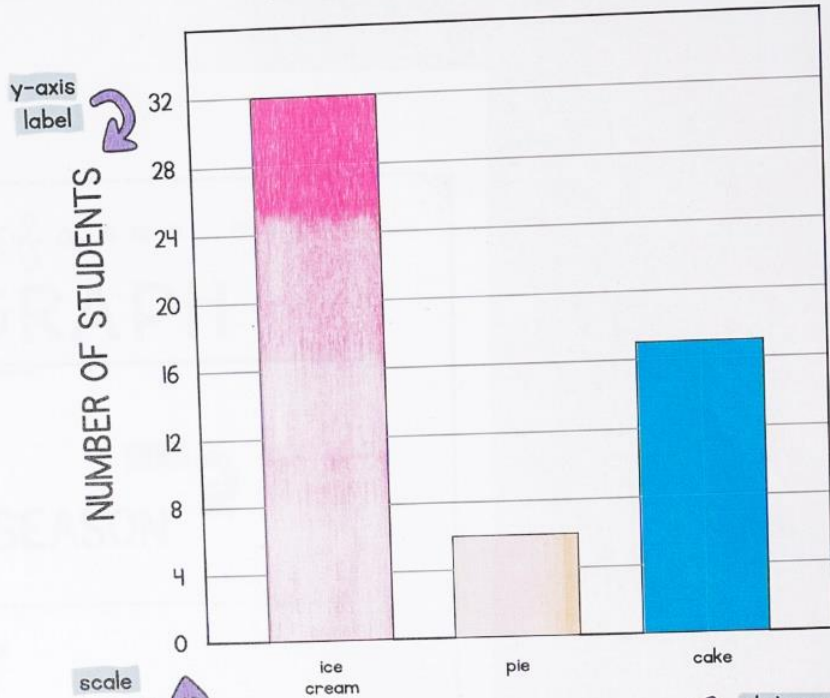
Directions: Create a bar graph.

Tanner surveyed his classmates about their favorite ice cream flavors. Their responses are on the clipboard. Plot the data on the graph below. How many students chose each flavor?

Flavor	Number of Students
Vanilla	15
Chocolate	10
Strawberry	5

parts of a BAR GRAPH

FAVORITE DESSERTS



parts of a PICTO

FAVORITE

Winter	★
Spring	★
Summer	★
Autumn	★

★ = 10 people

key

data categories

© John Bickel

DATE: _____

NG & INTERPRETING DATA

ite animal bar graph

ssmates what their favorite animal is. Use the information on estions.

FAVORITE ANIMAL



ite animal?

favorite animal?

ts like cats than birds?

dogs or birds?

nts like fish than dogs?



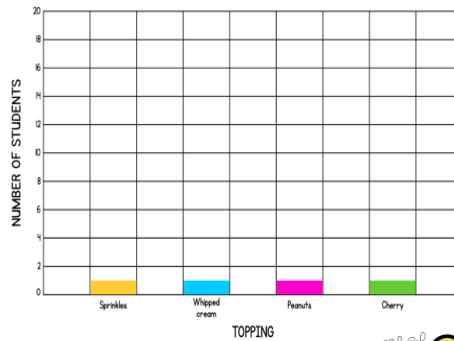
REPRESENTING & INTERPRETING DATA

graphing ice cream toppings

Directions: Tanner surveyed his classmates about their favorite ice cream topping. Their responses are on the clipboard. Plot the data on the graph below. Resize each bar by clicking on the colored bar and dragging to resize.

Topping	# of students
Sprinkles	16
Whipped cream	10
Peanuts	7
Cherry	3

FAVORITE ICE CREAM TOPPING



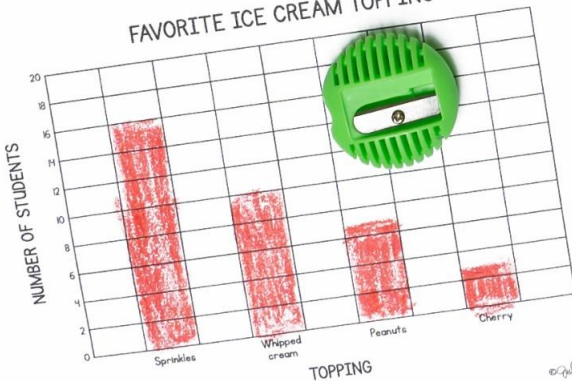
REPRESENTING & INTERPRETING DATA

graphing ice cream toppings

Create a bar graph to represent the data.

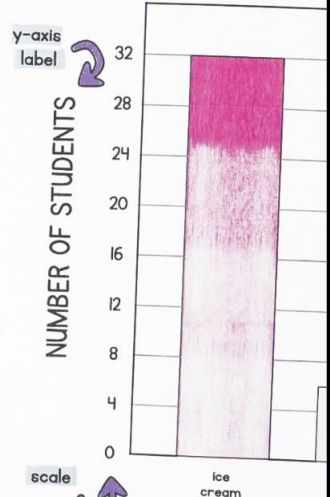
Tanner surveyed his classmates about their favorite ice cream topping. Their responses are on the clipboard. Plot the data on the graph below to show how many students prefer each topping.

FAVORITE ICE CREAM TOPPING



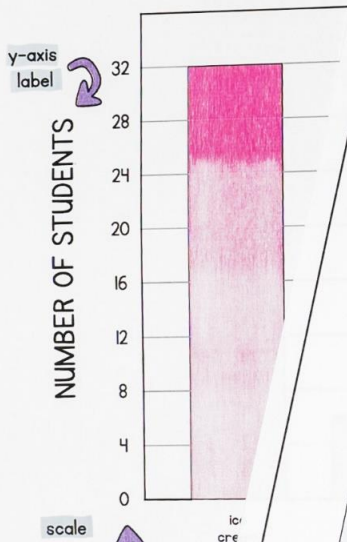
BAR C

FAVORI



parts of a BAR GRAPH

FAVORITE DESSERTS



PRESENTING & INTERPRETING DATA

parts of a PICTOGRAPH

FAVORITE SEASON

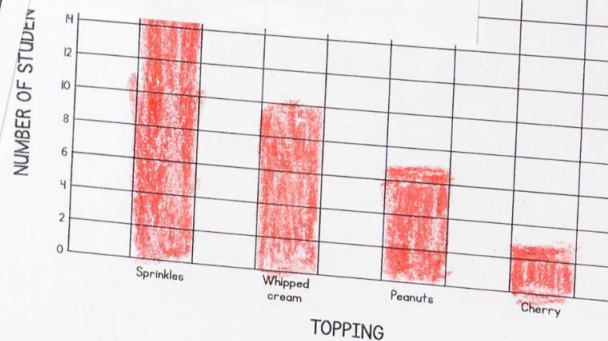


5 more students

21 students

12 fewer students

30 students



DATE:

ETING

ngs

of students

16

10

7

3

PPING



parts of a
GRAPH

parts of a
ICTOGRAPH

inter
Spring
Summer
Autumn

data
categories

REPRESENTING & INTERPRETING DATA

test

Directions: Fiona surveyed her classmates about their favorite type of movie. Use the information on the bar graph to answer the questions.

FAVORITE MOVIE GENRE

Genre	Number of Students
Comedy	8
Superhero	14
Action	9
Scary	3
Animated	1

- 7 How many students prefer action movies to scary movies?
- 8 How many fewer students prefer comedies to superhero movies?
- 9 How many students prefer the two most popular genres?

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

favorite animal bar graph

Directions: Marina asked her classmates what their favorite animal is. Use the information on the bar graph to answer the questions.

FAVORITE ANIMAL



NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

graphing ice cream toppings

Directions: Create a bar graph to represent the data.

Tanner surveyed his classmates about their favorite ice cream topping. Their responses are on the clipboard. Plot the data on the graph below to show how many students prefer each topping.

Topping	# of students
Sprinkles	16
Whipped cream	10
Peanuts	7
Cherry	3



- 1 What is the class' fi
- 2 What is the class' lea
- 3 How many more studen
- 4 How many students like
- 5 How many fewer students
- 6 How many students are in

FAVORITE DESSE

FAVORITE SEASON

Winter	 
Spring	   
Summer	   
Autumn	  

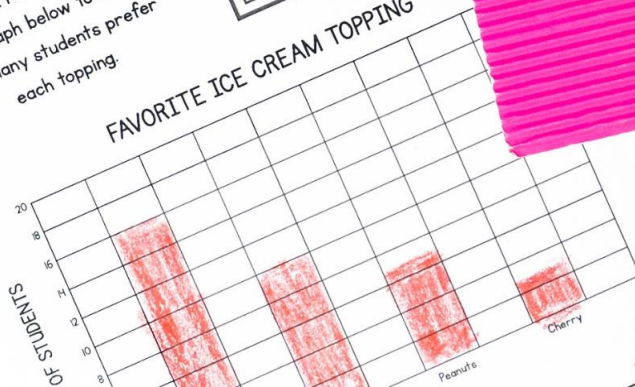
Directions: The pictograph below shows how many people were at the community pool at different times of the day. Use the information on the pictograph to answer the questions.

10:00 am	
12:00 pm	
2:00 pm	
4:00 pm	
6:00 pm	

 = 50 people

- 22 How many people were at the pool at 4:00 pm and 12:00 pm in total?
- 23 If 50 people were at the pool at 9:00 am, how many people arrived between 9:00 and 10:00?
- 24 How many more people were at the pool at the most crowded hour than the least crowded hour?

FAVORITE ICE CREAM TOPPING



parts of a PICTOGRAPH

title
FAVORITE SEASON

Winter

Spring

Summer

Autumn

data
category

REPRESENTING & INTERPRETING DATA

siblings pictograph

Directions: Avi asked his classmates how many siblings they have. Use the information on the pictograph to answer the questions.

NUMBER OF SIBLINGS

0 siblings	●
1 sibling	● ● ● ● ●
2 siblings	● ● ● ● ● ●
3 siblings	● ●
4 siblings	●

● = 2 classmates

1 How many students have 2 or more siblings?

2 How many students have fewer than 3 siblings?

3 How many more students have 2 siblings than 1 sibling?

3 How many...

4 How many...

5 How many fewer...

6 How many students are in the...

Directions: Cr

REPRESENTING & INTERPRETING DATA

BAR GRAPHS & PICTOGRAPHS

3rd grade

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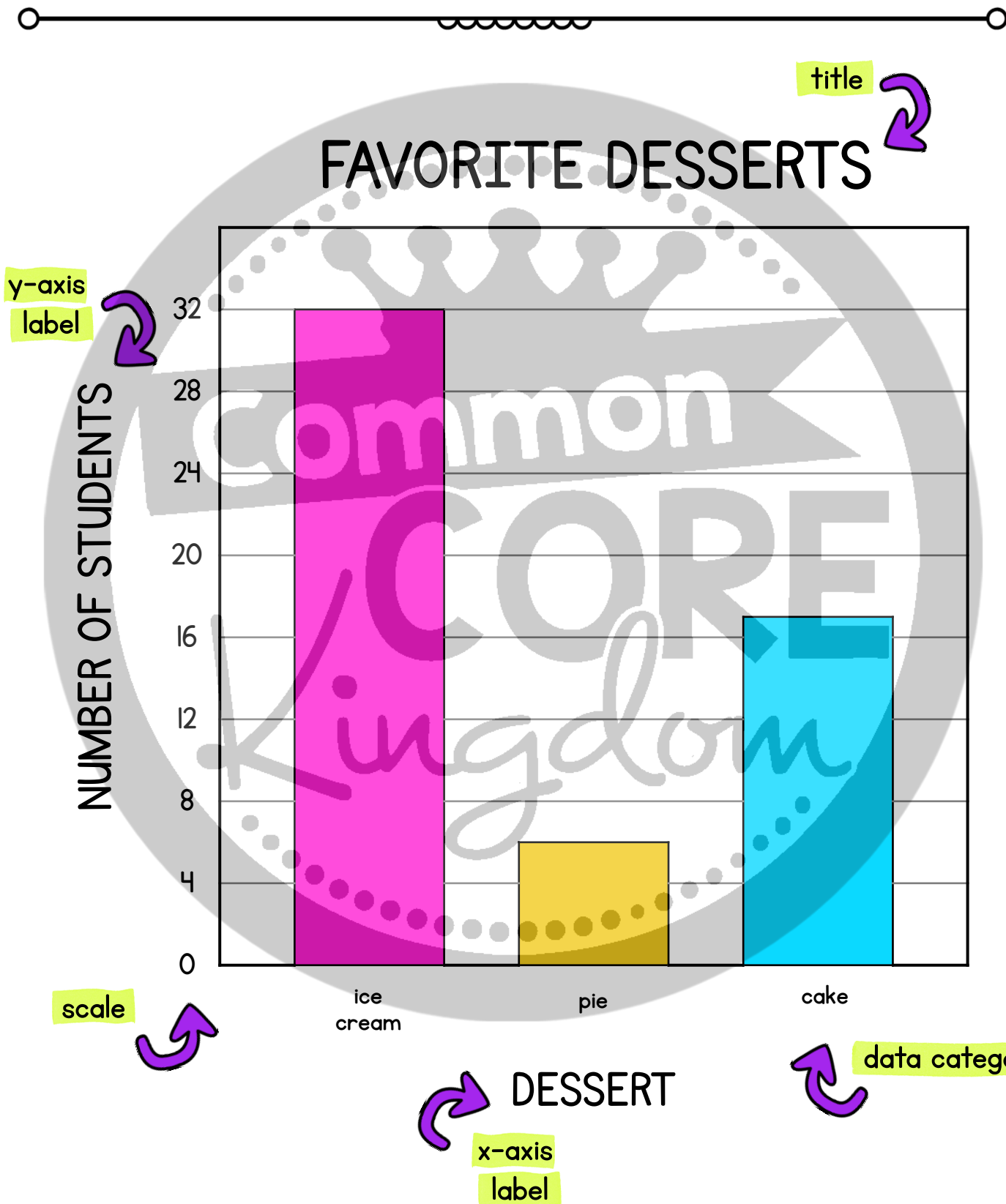
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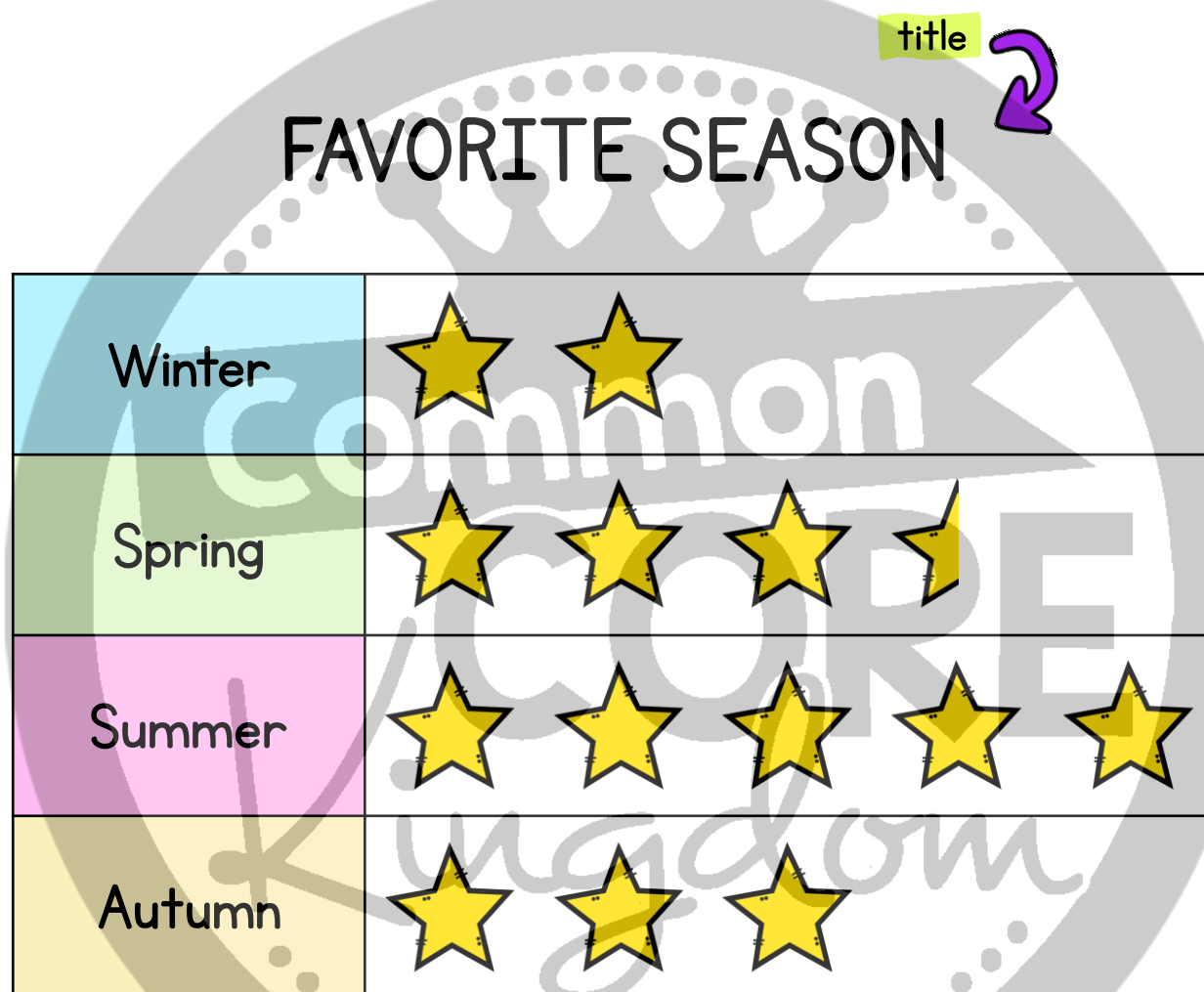
parts of a

BAR GRAPH



parts of a

PICTOGRAPH



data categories

 = 10 people

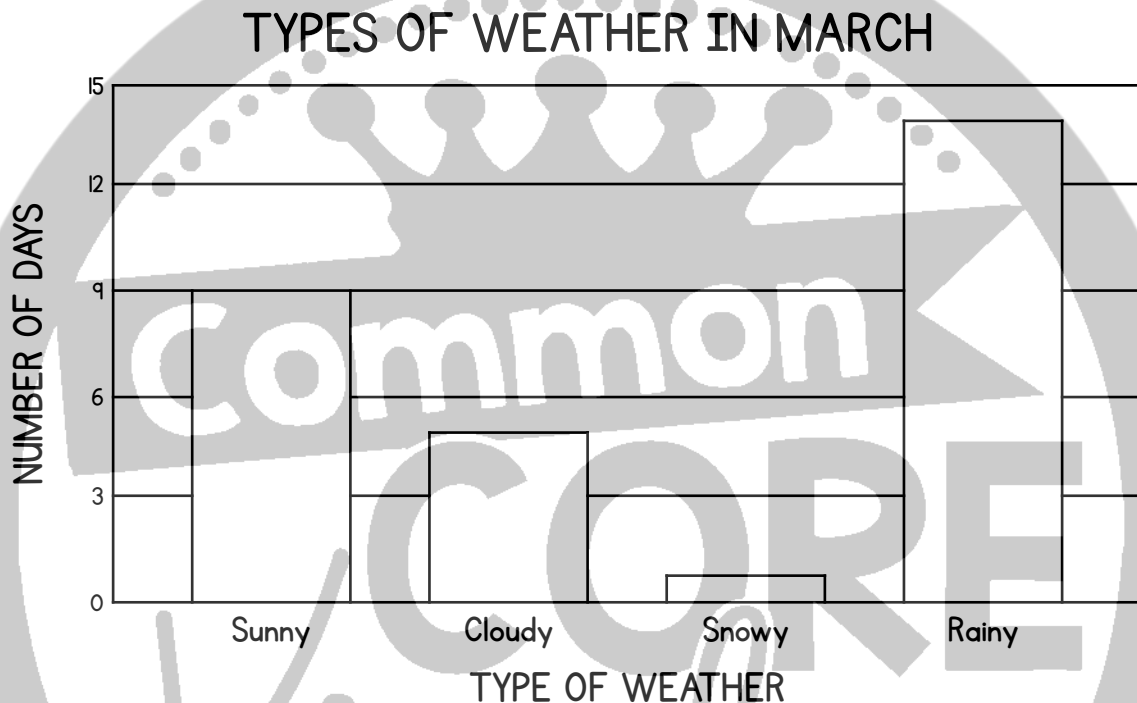
key

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

march weather bar graph

Directions: Ms. Grover's class observed and logged the weather during the month of March. Use the information on the bar graph to answer the questions.



- 1 What type of weather was the rarest in March? _____
- 2 How many days had some type of precipitation? _____
- 3 How many more sunny days were there than cloudy days? _____
- 4 How many fewer snowy days were there than rainy days? _____
- 5 How many days were either sunny or cloudy? _____
- 6 How many days were not rainy? _____

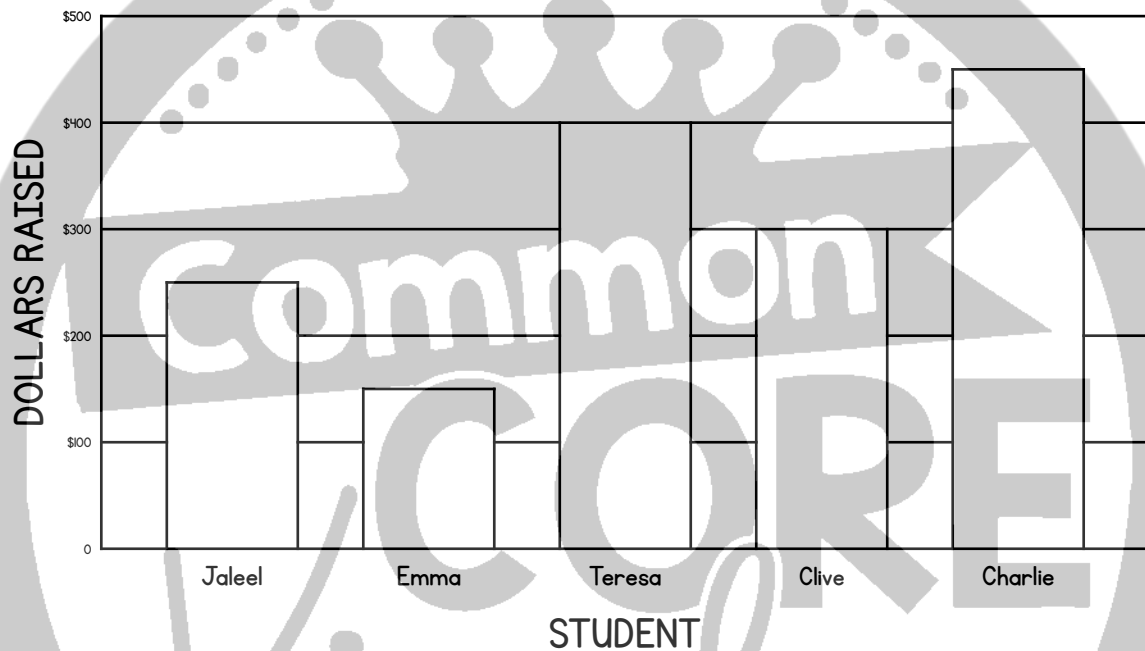
NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

school fundraiser bar graph

Directions: Five students took part in a fundraiser for their school. Use the information on the bar graph to answer the questions.

MONEY RAISED IN SCHOOL FUNDRAISER



- 1 How much more money did Clive raise than Jaleel? _____
- 2 How much more did Charlie raise than Jaleel and Emma together? _____
- 3 How much less did Clive raise than Teresa? _____
- 4 How much did the students raise altogether? _____
- 5 Who raised more: Teresa and Charlie together, or Clive, Jaleel, and Emma altogether? _____
- 6 Which two students raised \$600 altogether? _____

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

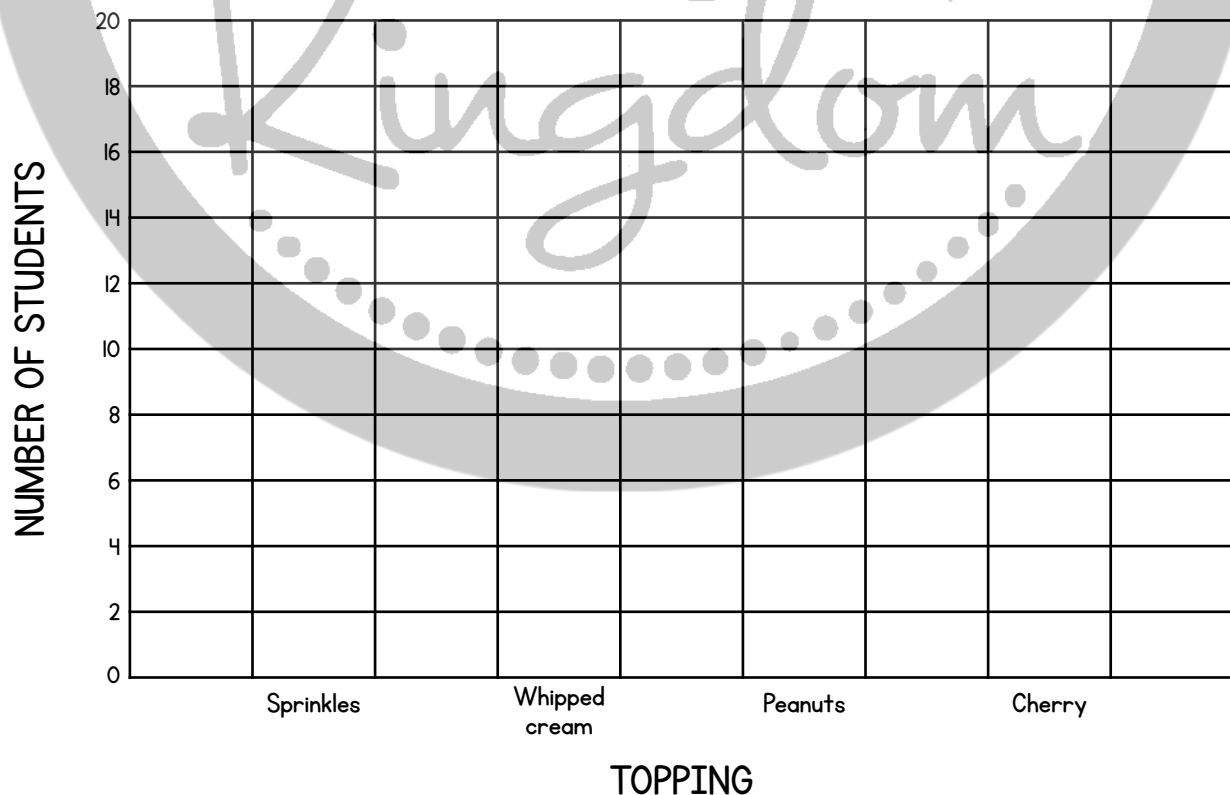
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Sprinkles	16
Whipped cream	10
Peanuts	7
Cherry	3

FAVORITE ICE CREAM TOPPING



NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

graph it! questions

Directions: Invent your own questions for numbers 4-6 based on your bar graph. Then, swap papers with a partner and answer each other's questions.

1 What was the most popular response? How many people chose this option?

2 What was the least popular response? How many people chose this option?

3 How many more people chose the most popular response than the least popular response?

4

5

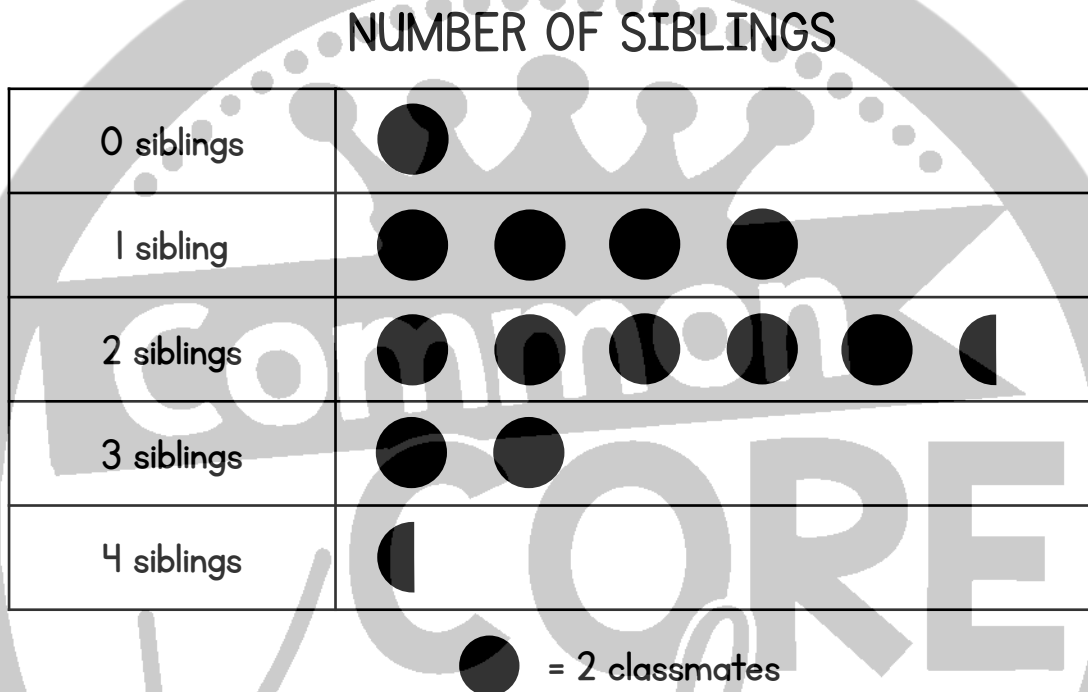
6

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

siblings pictograph

Directions: Avi asked his classmates how many siblings they have. Use the information on the pictograph to answer the questions.



- 1 How many students have 2 or more siblings? _____
- 2 How many students have fewer than 3 siblings? _____
- 3 How many more students have 2 siblings than 1 sibling? _____
- 4 How many more students have 1 sibling than 4 siblings? _____
- 5 How many fewer students have no siblings than 3 siblings? _____
- 6 How many students did Avi survey in all? _____

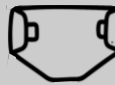
NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

baby weight pictograph

Directions: The pictograph below shows the weights of babies born in a hospital. Use the information on the pictograph to answer the questions.

BABY BIRTH WEIGHTS

5 pounds or less	  
6 pounds	     
7 pounds	    
8 pounds	    
9 pounds or more	   

 = 20 babies

- 1 How many babies weighed 7 pounds or less? _____
- 2 How many more babies weighed 8 pounds than weighed 9 pounds or more? _____
- 3 How many babies weighed more than 6 pounds? _____
- 4 How many babies were born in the hospital in total? _____
- 5 How many babies weighed 6 or 7 pounds? _____
- 6 How many babies did not weigh 8 pounds? _____

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

pizza toppings pictograph

Directions: Create a pictograph to represent the data.

Tae surveyed her classmates about their favorite pizza toppings. The results from her survey are on the clipboard. Create a pictograph to display the data.

Topping	# of students
Extra cheese	8
Pepperoni	10
Sausage	6
Mushrooms	3

_____ title

_____ = _____

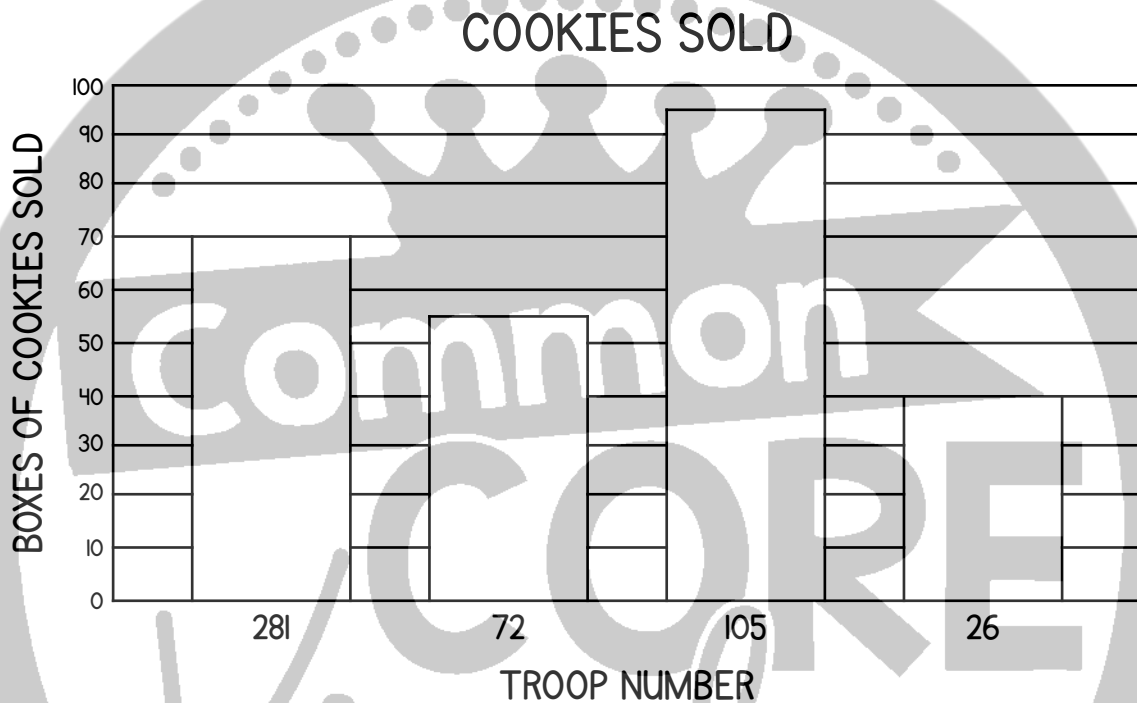
key

NAME: _____ DATE: _____

REPRESENTING & INTERPRETING DATA

test review

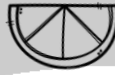
Directions: Five different troops of scouts are selling cookies. Use the information on the bar graph to answer the questions.



- 1 Which troop sold the most boxes of cookies? _____
- 2 How many more boxes of cookies did Troop 72 sell than Troop 26? _____
- 3 How many boxes of cookies did Troops 281 and 105 sell altogether? _____
- 4 How many fewer boxes of cookies did Troop 72 sell than Troop 281? _____
- 5 How many boxes of cookies did all the troops sell in total? _____
- 6 How many more boxes of cookies did the odd-numbered troops sell than the even-numbered troops? _____

Directions: Rodney sold lemonade at his lemonade stand over one week in the summer. Use the information on the pictograph to answer the questions.

MONEY EARNED AT RODNEY'S LEMONADE STAND

Sunday	    
Monday	 
Tuesday	   
Wednesday	 
Thursday	  
Friday	    
Saturday	     

 = \$5

- 19 How much money did Rodney earn over the weekend? _____
- 20 How much more money did Rodney earn on Friday than Tuesday? _____
- 21 How much money did Rodney earn in total on weekdays? _____
- 22 How much less did Rodney earn on Monday than Thursday? _____
- 23 Did Rodney earn more money Sunday through Wednesday or Thursday through Saturday? _____
- 24 How much did Rodney earn in total on his three lowest-earning days? _____

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