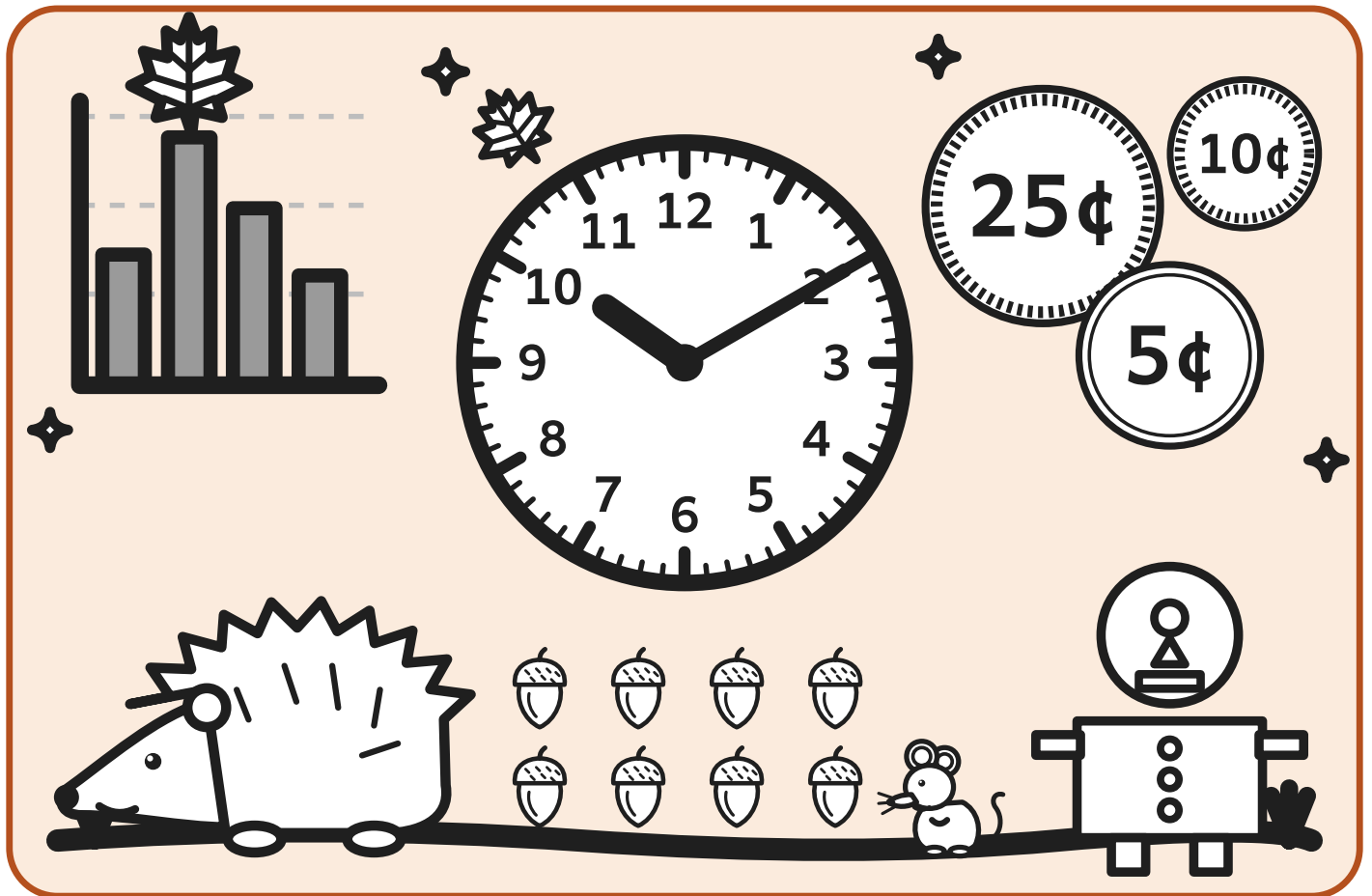


Fall

Math Pack: Time, Money and Data

Five cozy math worksheets about clocks, coins, charts, shapes and arrays, each with three levels. Teacher notes and answer keys are included.



1 Fall Festival Clocks
Hours, half hours and 5 minutes

2 Acorn Market Shop
Count coins and solve shop problems

3 Favorite Fall Fun Tally
Tally charts, pictograms, bar graphs

4 Friendly Shape Monsters
2-D shapes, 3-D shapes and riddles

5 Acorn Arrays
Rows, columns and equal groups

6 Teacher notes and answer key
Standards, tips and answers

☆☆☆ Starter ★★☆☆ Medium ★★★ Challenge
Ages 6-8 · Grades 1-2

Change The World With Karyn
changetheworldwithkaryn.com

Teacher and parent notes

Fall Math Pack: Time, Money and Data · Ages 6–8 · Grades 1–2

Hello, and happy fall! These five worksheets practice math that children use every day: telling time, counting coins, reading charts and graphs, naming shapes and counting things in rows. Everything is cozy, with acorns, falling leaves, a fall festival and a friendly hedgehog called Pip. Each worksheet has three levels, so one pack suits a mixed-ability class or a family with children of different ages. Enjoy the chat as much as the answers.

With magic, Karyn

What is in the pack

#	Worksheet	☆☆☆ Starter	★★☆ Medium	★★★ Challenge
1	Fall Festival Clocks Time	Read and draw o'clock and half past.	Read to 5 minutes. Quarter hours. A.m. and p.m.	Time later. Draw the hands.
2	Acorn Market Shop Money	Count coins to 30¢. Need or want?	Count mixed coins. Shop problems.	Fewest coins, change from \$1, a budget.
3	Favorite Fall Fun Tally Data	Count tally marks. Shade a pictogram.	Read a bar graph with four bars.	Make a bar graph, then compare.
4	Friendly Shape Monsters Shapes	Count and name 2-D shapes. Draw a monster.	Sides and corners. Quadrilaterals.	3-D shapes and real things.
5	Acorn Arrays Arrays	Count rows and columns. Add the rows.	Addition sentences. Turn an array.	Equal groups of 4. Draw 5 by 5 arrays.

Choosing a level

Starter has big pictures and small numbers. Medium reads times to five minutes and reads a bar graph. Challenge adds time later, change from \$1, drawing a bar graph and equal groups. Print the level each child needs, or let them try the next star up when they are ready.

Tips for using the worksheets

- **Start with real things.** Move the hands of a real clock, count real or play coins, take a class vote, and build arrays with counters before the page.
- **Say times two ways.** Say “half past 7” and “7:30” together. The short hand tells the hour and the long hand tells the minutes.
- **Coins can be tricky.** A dime is worth more than a nickel but is smaller. Count the biggest coin first, then count on.
- **Squares and rectangles.** The counts keep them separate, to keep counting simple. A square is a special rectangle, which older children may like to find out. A tilted shape is still the same shape.
- **Pip’s tips show a method, not an answer.** Pip, a little hedgehog, uses a different example from the page.
- **Time:** most children finish a worksheet in about 10 to 20 minutes.

Printing and accessibility

Print at 100% (“Actual size”, not “Fit to page”) on US Letter paper. Black and white is fine. Each worksheet fits on one page, so print just the levels you need. A sharp pencil helps with the drawing. The numbers are set in Andika, a typeface designed for beginning readers.

Curriculum links

A guide to where each worksheet fits. Each level covers a selection of these skills.

#	Worksheet	US Common Core	England National Curriculum (paraphrased)
1	Fall Festival Clocks	1.MD.B.3, 2.MD.C.7 Time later goes a little further	Year 1: tell the time to the hour and half past, and draw the hands. Year 2: tell and write the time to five minutes, including quarter past and quarter to, and draw the hands.
2	Acorn Market Shop	2.MD.C.8 Needs and wants is extra talk	Year 1: know the value of different coins. Year 2: combine coins to make an amount, find different ways to make the same amount, and solve money problems, including change. The pack uses US coins and cents.
3	Favorite Fall Fun Tally	1.MD.C.4, 2.MD.D.10	Year 2: interpret and construct simple pictograms, tally charts and block diagrams; answer questions by counting categories, and by totaling and comparing them.
4	Friendly Shape Monsters	1.G.A.1, 1.G.A.2, 2.G.A.1	Year 1: recognize and name common 2-D and 3-D shapes. Year 2: describe the properties of 2-D shapes (sides) and 3-D shapes (faces). A box (rectangular prism) is a cuboid in England.
5	Acorn Arrays	2.OA.C.4 Challenge looks ahead to 3.OA.A.1	Year 1: solve one-step multiplication problems with objects, pictures and arrays, with help. Year 2: use arrays and repeated addition.

US codes are Common Core State Standards for Mathematics, grades 1 and 2 (MD = Measurement and Data, G = Geometry, OA = Operations and Algebraic Thinking). Some states use their own standards, so check yours. The England column paraphrases the Year 1 and Year 2 national curriculum (ages 5 to 7); please check the exact wording on gov.uk before quoting it in a plan.

Supporting and stretching

To support

- Use a real clock with moving hands. Move the short hand first.
- Keep real or play coins beside the page. Sort them by kind before counting.
- Build each array with counters first.

To stretch

- Ask “How else could you make 35¢?” and look for more than one way.
- Ask children to write their own “time later” or shop problem for a partner.
- Turn each array on its side. What stays the same?

Ideas for talking about the math

- What is your favorite time of day? Show it on a clock.
- What could you buy with 50¢ at the acorn market? Is it a need or a want?

More from Karyn

Find more free learning resources and our free online kids’ book club at changetheworldwithkaryn.com. Watch the read-aloud stories on YouTube at [@StoryTimeWithKaryn](https://www.youtube.com/channel/UCqWz8vY8vY8vY8vY8vY8vY8) and the lessons at [@LearnWithKaryn](https://www.youtube.com/channel/UCqWz8vY8vY8vY8vY8vY8vY8).

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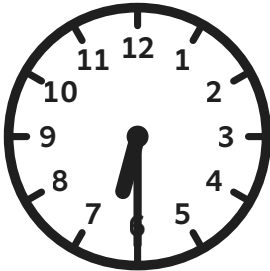


Fall Festival Clocks

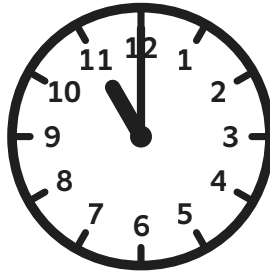
Name _____ Date _____

Part A What time does each clock show? Write the time in the box.

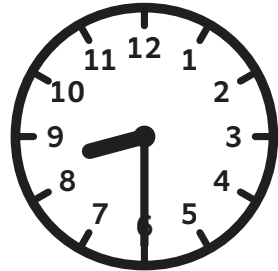
1


 :

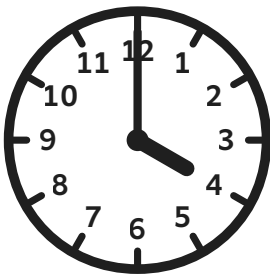
2


 :

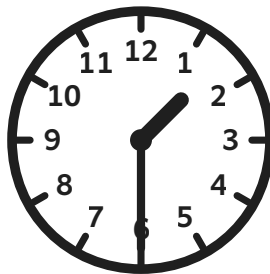
3


 :

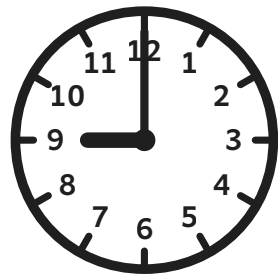
4


 :

5


 :

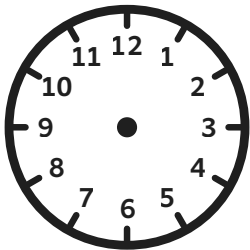
6


 :

Part B Draw the hands to show each time. The **short** hand shows the hour. The **long** hand shows the minutes.

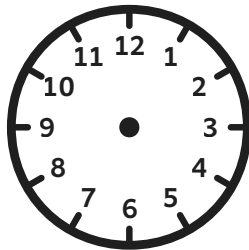
7

5:30



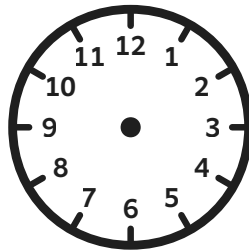
8

10:00



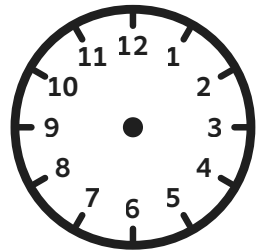
9

12:30



10

3:00



PIP'S TIP

The long hand on 12 means **o'clock**. If the short hand points to 7 and the long hand points to 12, it is 7:00. The long hand on 6 means **half past**, so it is 7:30.



Fall Festival Clocks

Name _____ Date _____

Part A What time does each clock show? Write the time in the box.

1


 :

2


 :

3


 :

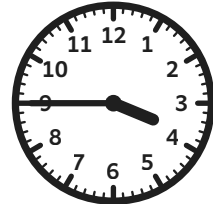
4


 :

5


 :

6


 :

Part B Write each time in numbers.

7

half past 4

 :

8

quarter to 9

 :

9

quarter past 12

 :


PIP'S TIP

Quarter past 2 is 2:15. Half past 2 is 2:30. Quarter to 3 is 2:45.

Part C Is it **a.m.** or **p.m.**? Circle one. A.m. is for the morning. P.m. is for the afternoon, evening and night.

10

Hazel eats breakfast at **7:30** in the morning.

a.m.

p.m.

11

The leaf-raking party begins at **3:00** in the afternoon.

a.m.

p.m.

12

Pip watches the sunrise at **6:45** in the morning.

a.m.

p.m.

13

The owls hoot at **9:00** at night.

a.m.

p.m.



Fall Festival Clocks

Name _____ Date _____

Part A What time does each clock show? Write the time in the box.

1


 :

2


 :

3


 :

4


 :

5


 :

6


 :

Part B Look at the clock. What time will it be later?

7



The leaf walk starts now. It takes 1 hour. What time will it end?

 :

8



Hazel starts her nap now. It lasts half an hour. What time will she wake up?

 :

9



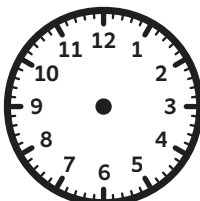
The hedgehog parade starts now. It lasts 1 hour. What time will it end?

 :

Part C Draw the hands to show each time.

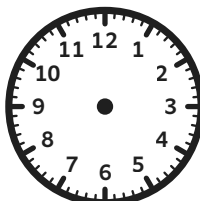
10

4:20



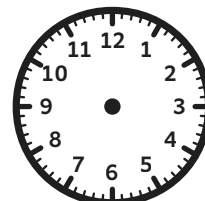
11

8:55



12

1:05





Acorn Market Shop

Name _____

Date _____



penny
1¢



nickel
5¢



dime
10¢



quarter
25¢

Part A Count the coins. Write how many cents in the box.

1         ¢

2    ¢

3    ¢

4     ¢

Part B Is it a **need** or a **want**? Circle one.

5  scarf
 need want

6  kite
 need want

7  hat
 need want

8  pinwheel
 need want



PIP'S TIP

A **need** is something you must have to stay warm, safe and healthy, like warm clothes. A **want** is fun to have, but you can live without it.



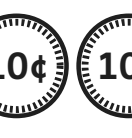
Acorn Market Shop

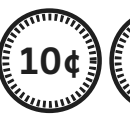
Name _____

Date _____

Part A Count the coins. Write how many cents in the box.

1     ¢

2     ¢

3       ¢

Part B Use the price board to solve each problem.

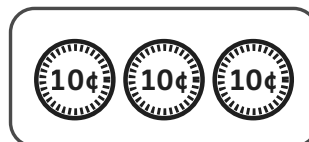
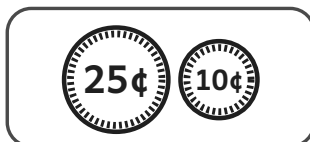
ACORN MARKET					
					
hat	boots	scarf	kite	pinwheel	sticker
25¢	45¢	35¢	40¢	20¢	10¢

4 Hazel buys the hat and the pinwheel. How much do they cost **together**? ¢

5 Pip has 60¢. Pip buys the kite. How much money is **left**? ¢

6 How many cents **more** do the boots cost than the scarf? ¢

7 Pip pays for the hat with exactly 25¢. Circle **both** sets of coins that make 25¢.





Acorn Market Shop

Name _____

Date _____

Part A Count the coins. Write how many cents in the box.

1		¢
2		¢

Part B Use the **fewest coins** to make each amount. Write how many of each coin.

3 36¢ quarters nickels dimes pennies	4 60¢ quarters nickels dimes pennies	5 83¢ quarters nickels dimes pennies
--	--	--

Part C Use the price board to solve each problem.

ACORN MARKET					
hat	boots	scarf	kite	pinwheel	sticker
25¢	45¢	35¢	40¢	20¢	10¢

- 6 Hazel has \$1, which is 100¢. Hazel buys the boots. How much **change** does Hazel get? ¢
- 7 Pip buys the sticker, the pinwheel and the scarf. What is the **total**? ¢
- 8 Hazel has 60¢. Hazel buys the **hat** first, which is a need. Circle **every want** Hazel can still buy with the money left.

 kite 40¢	 pinwheel 20¢	 sticker 10¢
------------------------	----------------------------	---------------------------



Favorite Fall Fun Tally

Name _____ Date _____

Part A Count the tally marks. Write how many votes. Then **shade one circle** for each vote.

Our favorite fall fun	Tally	How many?	Pictogram
 Jump in leaves	/		○ ○ ○ ○ ○ ○ ○ ○ ○ ○
 Fly a kite	/		○ ○ ○ ○ ○ ○ ○ ○ ○ ○
 Splash in puddles			○ ○ ○ ○ ○ ○ ○ ○ ○ ○

Key: 1 circle = 1 child

Part B Use the chart to answer the questions.

1 Which fall fun got the **most** votes? Circle it.

Leaves

Kites

Puddles

2 Which fall fun got the **fewest** votes? Circle it.

Leaves

Kites

Puddles

3 How many children voted **in all**?

--	--

4 How many **more** children chose to fly a kite than to splash in puddles?

--	--



PIP'S TIP

Each tally mark is one vote. Four lines with a slash across them make a group of five. Count the groups of five first, then count on.

Favorite Fall Fun Tally

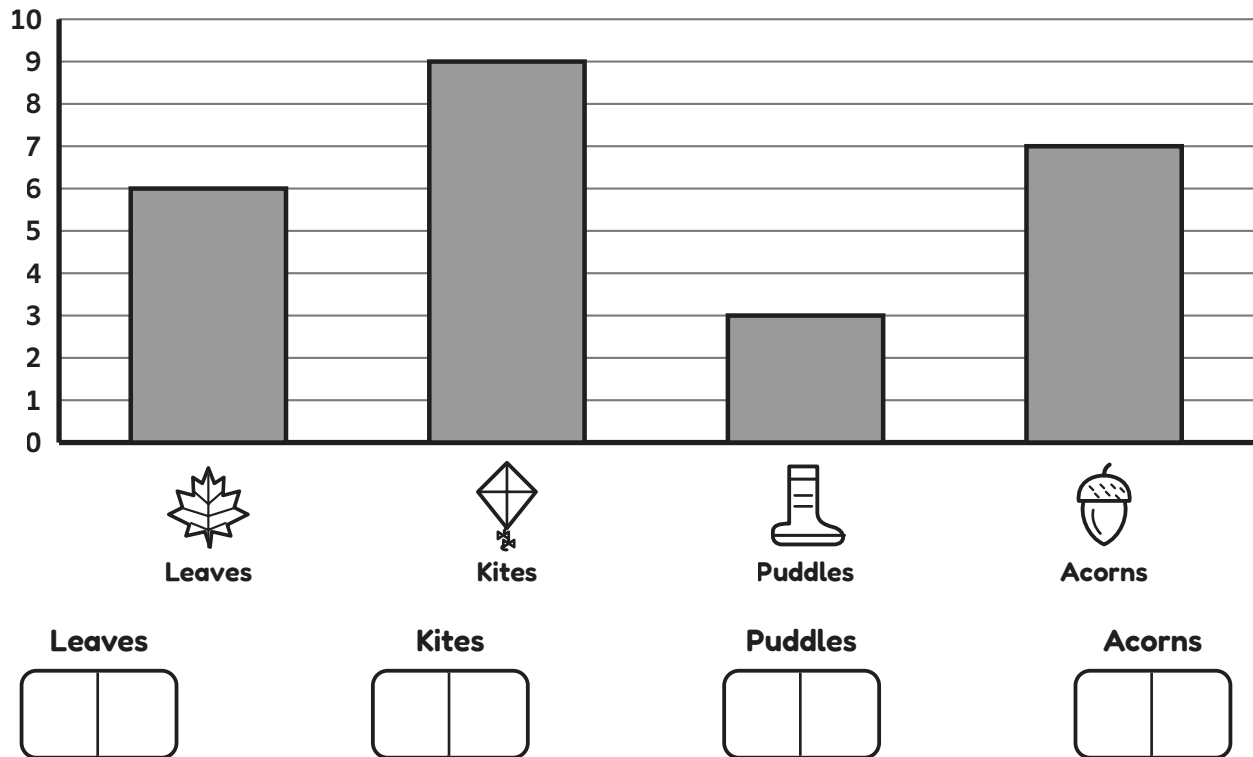


★★☆☆ Medium

Name _____

Date _____

Part A This bar graph shows **our favorite fall fun**. Write how many children chose each one.



Part B Use the bar graph to answer the questions.

1 Which fall fun got the **most** votes? Circle it.

Leaves

Kites

Puddles

Acorns

2 Which fall fun got the **fewest** votes? Circle it.

Leaves

Kites

Puddles

Acorns

3 How many children voted **in all**?

4 How many **more** children chose to fly a kite than to collect acorns?

5 How many children chose to jump in leaves **or** to splash in puddles?



Favorite Fall Fun Tally

Name _____ Date _____

Part A Count the tally marks. Write how many votes each one got.



Leaves



Kites



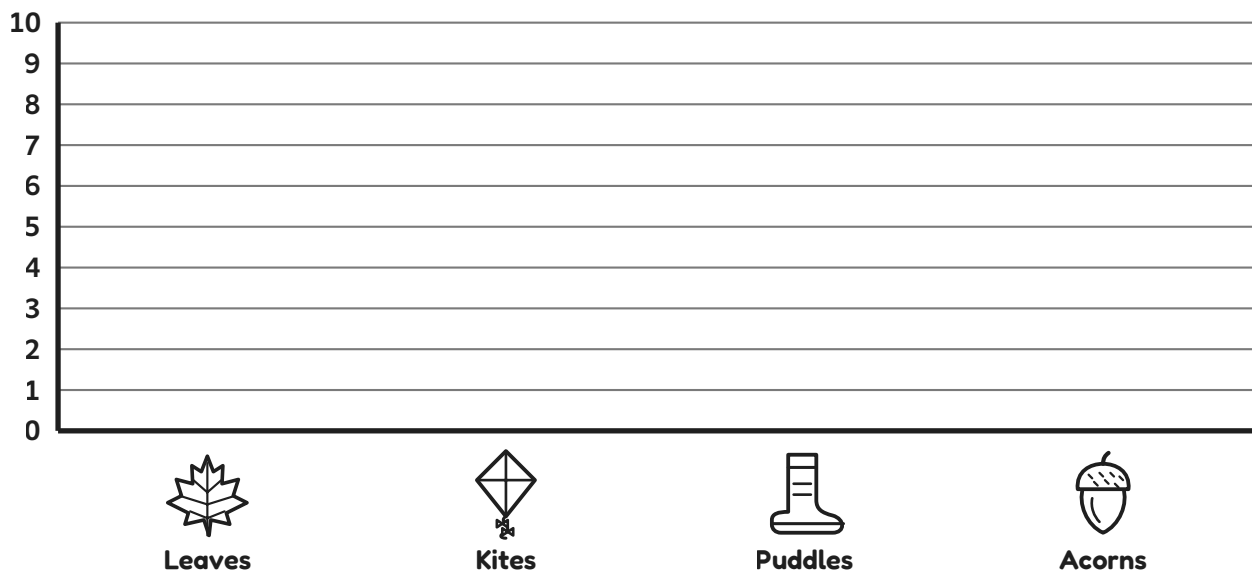
Puddles



Acorns



Part B Draw a bar for each one. Make each bar as tall as the number of votes.



Part C Use your bar graph to answer the questions.

- How many children voted **in all**?
- How many **more** children chose to jump in leaves than to fly a kite?
- How many children chose to splash in puddles **or** to collect acorns?
- 2 more children choose to collect acorns. Which fall fun would have the **most** votes then? Circle it.

Leaves

Kites

Puddles

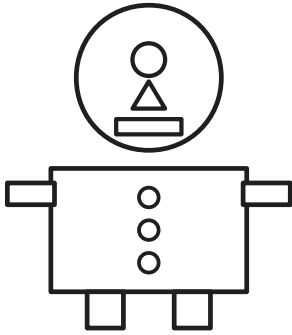
Acorns



Friendly Shape Monsters

Name _____ Date _____

Part A Count the shapes in the monster. Write how many of each.



triangles



circles



squares



rectangles



Part B Which shape am I? Circle it.

1 I am round. I have no corners.



2 I have 4 corners. All my sides are the same length.



3 I have 3 straight sides. I have 3 corners.



4 I have 4 sides. Two sides are long and two are short.



Part C Draw your own monster. Use **1 square** for the head, **2 circles** for the eyes, **1 rectangle** for the body and **2 triangles** for the ears.

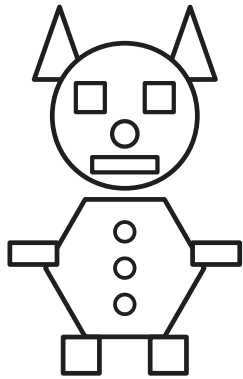
My monster



Friendly Shape Monsters

Name _____ Date _____

Part A Count the shapes in the monster. Write how many of each.



triangles



circles



squares



rectangles



hexagons

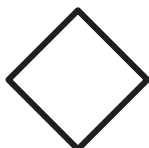


Part B Write the name of each shape. Then count its **sides** and its **corners**.

Word bank triangle square rectangle pentagon hexagon

Shape	Name	Sides	Corners
1	_____		
2	_____		
3	_____		
4	_____		

Part C A shape with **4 sides** is a **quadrilateral**. Circle every quadrilateral.

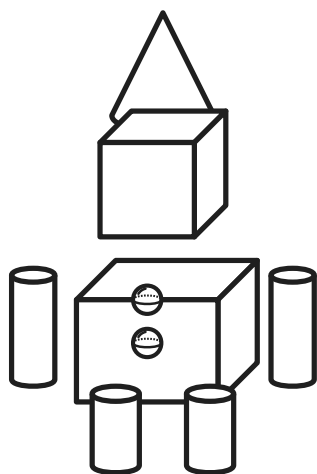




Friendly Shape Monsters

Name _____ Date _____

Part A Count the solid shapes in the monster. Write how many of each.



cones



spheres



cubes



boxes

rectangular prism



cylinders

Part B Which solid shape am I? Write its name. Use the pictures to help.



cube



sphere



cone



cylinder



box

1 I can roll in every direction. I have no flat faces. _____

2 I have 6 flat faces. Some of my faces are rectangles that are not squares. _____

3 I have 2 flat faces that are circles. I can roll and I can stack. _____

4 I have 6 flat faces. All of my faces are squares. _____

Part C What shape is each thing?

5 A ball of yarn is a _____

6 A game die is a _____

7 A drum is a _____

8 A party hat is a _____



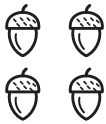
Acorn Arrays

Name _____

Date _____

Part A Count the rows and the columns. Then count how many acorns in all.

1



rows

columns

in all

2



rows

columns

in all

3

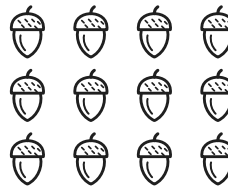


rows

columns

in all

4



rows

columns

in all

Part B Add the rows. Write an addition sentence for each array.

5



$$\square + \square + \square = \square$$

6



$$\square + \square + \square + \square = \square$$


PIP'S TIP

Rows go across. **Columns** go down. This array has 2 rows and 5 columns. To find how many in all, add the rows: $5 + 5 = 10$.

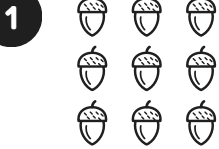




Acorn Arrays

Name _____

Date _____

Part A Write an addition sentence for each array. Then write the total.


$$\square + \square + \square = \square \square$$



$$\square + \square + \square = \square \square$$



$$\square + \square + \square + \square = \square \square$$



$$\square + \square + \square + \square = \square \square$$

Part B Turn the array on its side. Write an addition sentence for each one.


$$\square + \square + \square = \square \square$$



$$\square + \square + \square + \square = \square \square$$

7 What do you notice about the two totals? Circle one.

☐ They are the same

☐ They are different

PIP'S TIP

Add the number in each row. This array has 4 rows with 2 in each row, so the addition sentence is $2 + 2 + 2 + 2 = 8$.





Acorn Arrays

Name _____ Date _____

Part A Each basket has **4 acorns**. Add to find how many acorns in all.

1  $4 =$

--	--

2  $4 + 4 =$

--	--

3  $4 + 4 + 4 =$

--	--

4  $4 + 4 + 4 + 4 =$

--	--

Part B Solve each problem.

5 Each basket holds 4 acorns. How many acorns are in 5 baskets?

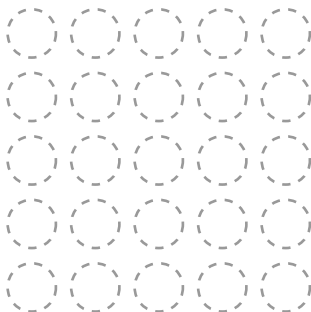
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6 Hazel puts leaves in 3 rows. There are 5 leaves in each row. How many leaves?

--	--

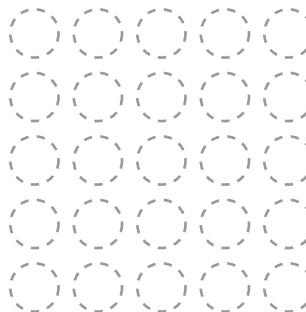
Part C Draw acorns in the circles to make each array. Leave the other circles empty. Then write an addition sentence.

7 Draw **3 rows of 3**.



$$\square + \square + \square = \square$$

8 Draw **5 rows of 5**.



$$\square + \square + \square + \square + \square = \square$$

Answer key

For teachers and parents. Accept any correct method. Times can be written as 7:30 or “half past 7”. Drawings and monsters will vary, so check that they follow the instructions.

Worksheet 1 • Fall Festival Clocks

☆☆☆ **Starter** Write the time, then draw the hands

Part A 1. 6:30 2. 11:00 3. 8:30 4. 4:00 5. 1:30 6. 9:00

Part B The short hand points to the hour. The long hand points to 12 for o'clock and to 6 for half past.



7 5:30



8 10:00



9 12:30



10 3:00

☆☆☆ **Medium** Times, words, a.m. and p.m.

Part A 1. 1:25 2. 7:15 3. 10:40 4. 5:50 5. 12:10 6. 3:45

Part B 7. half past 4 = 4:30 8. quarter to 9 = 8:45 9. quarter past 12 = 12:15

Part C 10. a.m. 11. p.m. 12. a.m. 13. p.m.

☆☆☆ **Challenge** Times, time later, draw the hands

Part A 1. 6:05 2. 2:50 3. 9:25 4. 11:55 5. 4:40 6. 8:20

Part B 7. 2:00 + 1 hour = 3:00 8. 4:30 + 30 minutes = 5:00 9. 9:30 + 1 hour = 10:30

Part C Check the hands. The short hand is close to the hour and the long hand points to the minutes.



10 4:20



11 8:55



12 1:05

Worksheet 2 • Acorn Market Shop

☆☆☆ **Starter** Count the coins · need or want

Part A 1. 8¢ 2. 15¢ 3. 20¢ 4. 28¢

Part B 5. scarf: need 6. kite: want 7. hat: need 8. pinwheel: want

☆☆☆ **Medium** Count the coins · use the price board

Part A 1. 56¢ 2. 55¢ 3. 36¢

Part B 4. 45¢ 5. 20¢ 6. 10¢ 7. sets 2 and 4

☆☆☆ **Challenge** Count · fewest coins · change and budget

Part A 1. 88¢ 2. 76¢

Part B 3. 36¢ = 1 quarter, 1 dime, 1 penny 4. 60¢ = 2 quarters, 1 dime 5. 83¢ = 3 quarters, 1 nickel, 3 pennies

Part C 6. 55¢ 7. 65¢ 8. 35¢ left. Circle: pinwheel, sticker

Worksheet 3 · Favorite Fall Fun Tally

☆☆☆ **Starter** Tally · pictogram · questions

Part A **Leaves 5 Kites 7 Puddles 2**

Shade one circle for each vote. The number of shaded circles matches the tally.

Part B **1. Kites 2. Puddles 3. 14 4. 5**

☆☆☆ **Medium** Read the bar graph

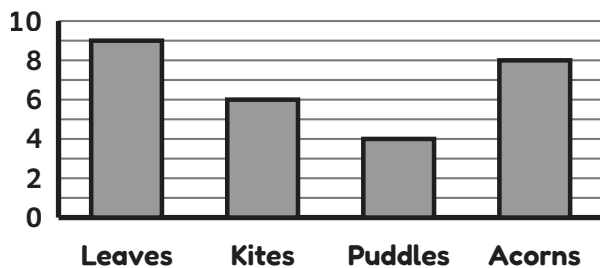
Part A **Leaves 6 Kites 9 Puddles 3 Acorns 7**

Part B **1. Kites 2. Puddles 3. 25 4. 2 5. 9**

☆☆☆ **Challenge** Tally, bar graph, questions

Part A **Leaves 9 Kites 6 Puddles 4 Acorns 8**

Part B Each bar is as tall as the number of votes.



Part C **1. 27 2. 3 3. 12 4. Acorns**

Worksheet 4 · Friendly Shape Monsters

☆☆☆ **Starter** Count the shapes · riddles

Part A **triangles 1 circles 5 squares 2 rectangles 4**

Part B **1. circle 2. square 3. triangle 4. rectangle**

Part C Any monster that uses 1 square for the head, 2 circles for the eyes, 1 rectangle for the body, 2 triangles for the ears.

☆☆☆ **Medium** Count · sides and corners · quadrilaterals

Part A **triangles 2 circles 5 squares 4 rectangles 3 hexagons 1**

Part B **1. hexagon, 6 sides, 6 corners 2. rectangle, 4 sides, 4 corners 3. triangle, 3 sides, 3 corners 4. pentagon, 5 sides, 5 corners**

Part C Counting from the left, circle the 1st shape (the standing-up rectangle), the 3rd (the tilted square) and the 5th (the square).

☆☆☆ **Challenge** Solid shapes · riddles · real things

Part A **cones 1 spheres 2 cubes 1 boxes 1 cylinders 4**

Part B **1. sphere 2. box 3. cylinder 4. cube**

Part C **5. sphere 6. cube 7. cylinder 8. cone**

Worksheet 5 · Acorn Arrays

☆☆☆ **Starter** Rows, columns, add the rows

Part A **1.** 2 rows, 2 columns, 4 in all **2.** 2 rows, 3 columns, 6 in all **3.** 3 rows, 3 columns, 9 in all
4. 3 rows, 4 columns, 12 in all

Part B **5.** $5 + 5 + 5 = 15$ **6.** $2 + 2 + 2 + 2 = 8$

☆☆☆ **Medium** Addition sentences · turn the array

Part A **1.** $3 + 3 + 3 = 9$ **2.** $5 + 5 + 5 = 15$ **3.** $4 + 4 + 4 + 4 = 16$ **4.** $5 + 5 + 5 + 5 = 20$

Part B **5.** $4 + 4 + 4 = 12$ **6.** $3 + 3 + 3 + 3 = 12$ **7.** They are the same.

☆☆☆ **Challenge** Equal groups · word problems · draw arrays

Part A **1.** $4 = 4$ **2.** $4 + 4 = 8$ **3.** $4 + 4 + 4 = 12$ **4.** $4 + 4 + 4 + 4 = 16$

Part B **5.** 20 acorns **6.** 15 leaves

Part C **7.** 3 rows of 3: $3 + 3 + 3 = 9$ **8.** 5 rows of 5: $5 + 5 + 5 + 5 + 5 = 25$