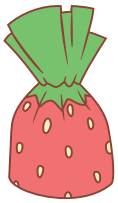
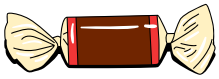
CANDY PATTERNS

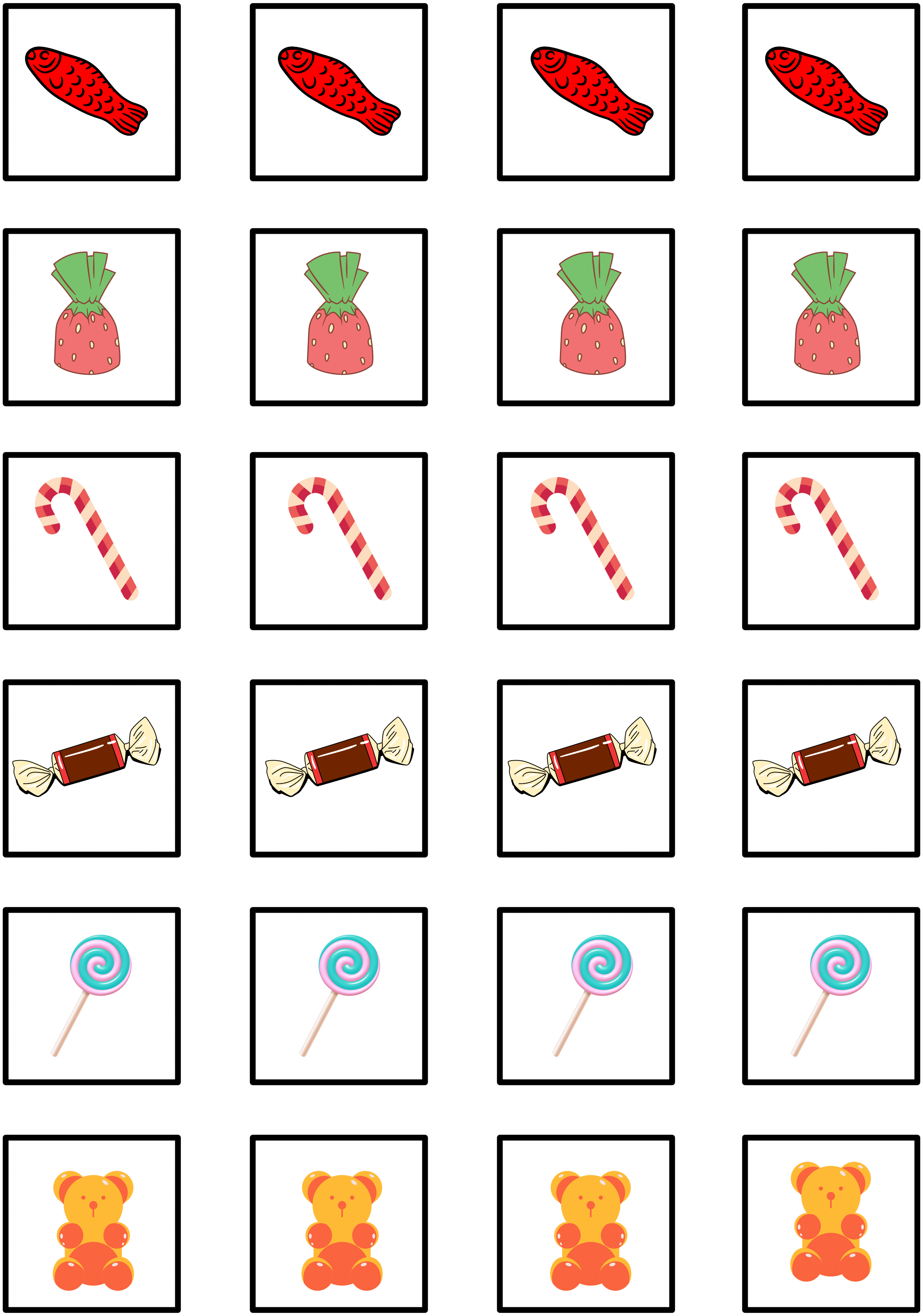
In the opera *Hansel and Gretel*, the characters of Hansel and Gretel find themselves trapped in a Witch's house made of candy! Assemble the patterns below using these clues to help them escape. And remember, no candy can repeat in the pattern even if the pattern uses the same two clues.

Column 1: Fruit Shaped, Stripes, Wrapped, On a Stick, Animal
Column 2: Wrapped, Stripes, Animal, Wrapped, On a Stick
Column 3: Animal, Wrapped, Animal, Wrapped, Stripes

	1	2	3
Red Fish *Pescado Rojo* 			
Strawberry Bon Bon *Dulce de fresa* 			
Candy Cane *Bastón de caramelo* 			
Chocolate *Chocolate* 			
Lollipop *La piruleta* 			
Gummy Bear *Osito de goma* 			

Redlands Symphony

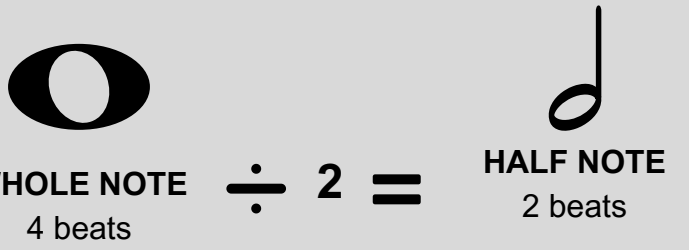
CA State Standards Aligned: Mathematics- Grade 4 (4.OA.5: Analyzing Patterns)



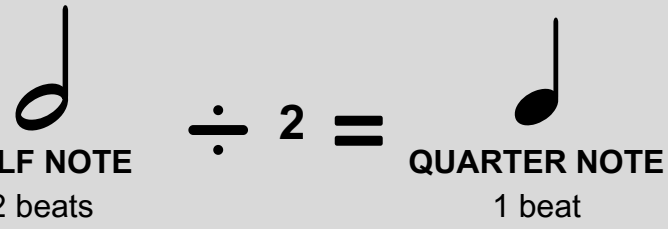
THE MUSIC OF MATH

Redlands Symphony

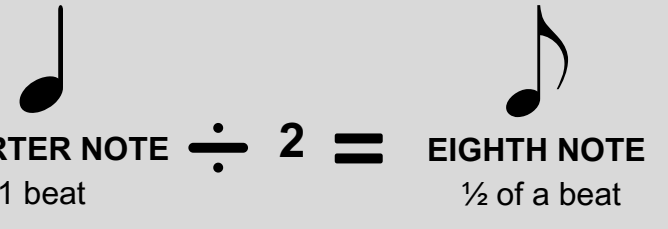
Did you know music is a version of math?
Every note an orchestra plays is a fraction of a beat. Check it out!



WHOLE NOTE ÷ 2 = **HALF NOTE**
4 beats — 2 beats



HALF NOTE ÷ 2 = **QUARTER NOTE**
2 beats — 1 beat



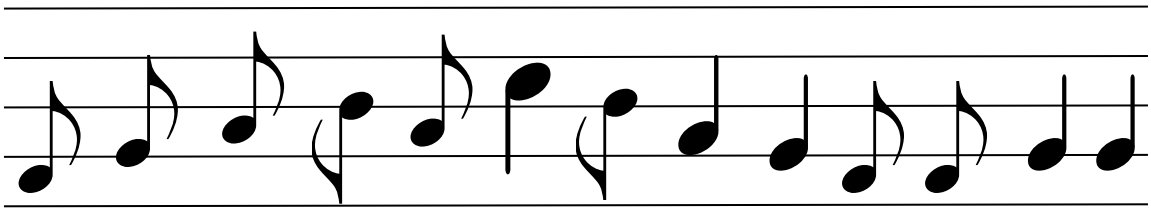
QUARTER NOTE ÷ 2 = **EIGHTH NOTE**
1 beat — ½ of a beat

Let's figure out how many beats are in each song from *Hansel and Gretel*. Here's an example:

Gretel sings:	**A**	**lit-**	**tle**	**man**	**stands**	**still**	**and**	**si-**	**lent**	**in**	**the**	**for-**	**est.**
	½	½	½	½	½	1	½	1	1	½	½	1	1

How many beats total does Gretel sing?: 9

Heads up! Even if the notes are on different lines or are upside down, their value doesn't change!



Gretel sings:	**A**	**lit-**	**tle**	**man**	**stands**	**still**	**and**	**si-**	**lent**	**in**	**the**	**for-**	**est.**
	½	½	½	½	½	1	½	1	1	½	½	1	1

How many beats total does Gretel sing?: 9

THE MUSIC OF MATH

÷ 2 = ÷ 2 = ÷ 2 =

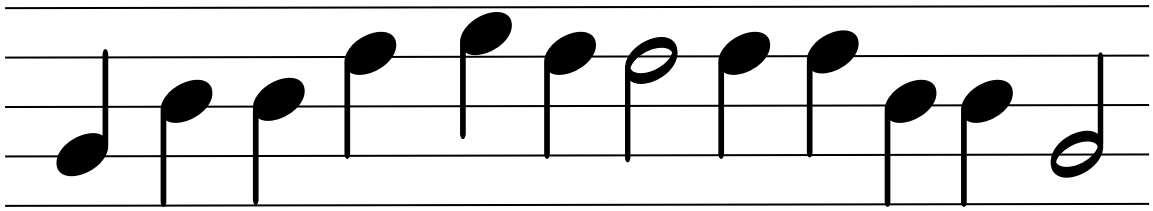
WHOLE NOTE
4 beats

HALF NOTE
_____ beats

QUARTER NOTE
_____ beat

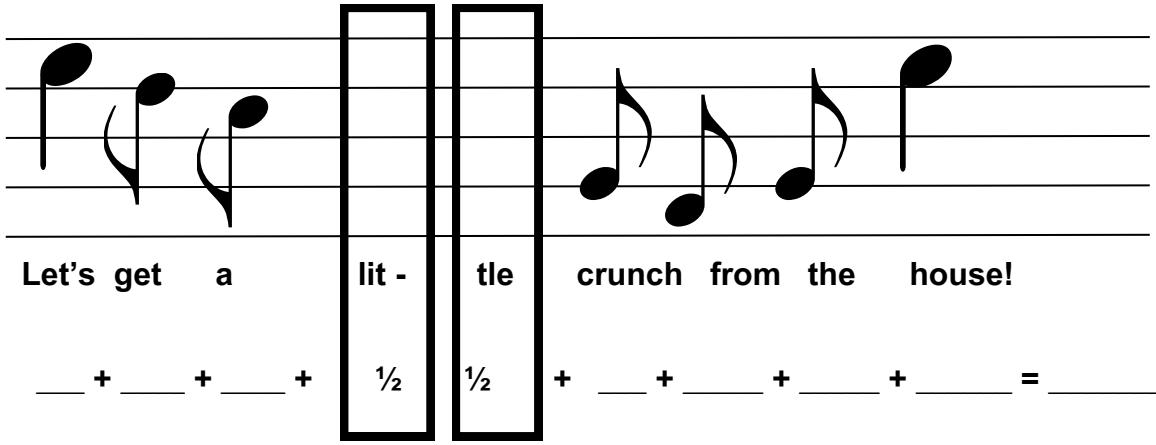
EIGHTH NOTE
____ of a beat

When Hansel and Gretel start exploring the forest, the orchestra plays this music:



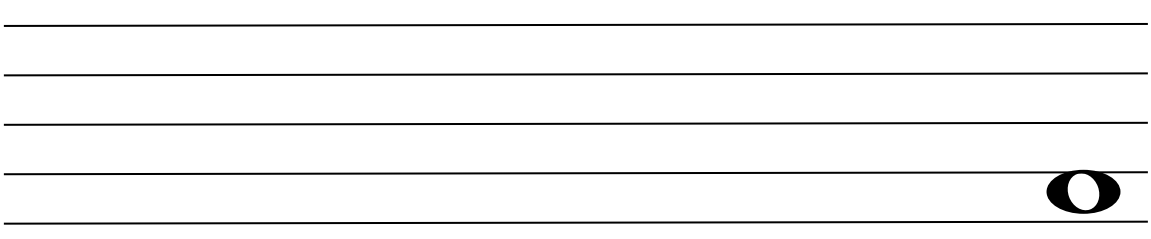
___ + ____ + ____ + ____ + ____ + ____+____+____+___+____+____+_____=_____

The children come across a house made of gingerbread and candy and decide to have a taste: (For this one, you have to write some notes!)



___ + ____ + ____ + ½ ½ + ___ + _____ + _____ + _____ = _____

After being captured by a Witch, Hansel recites a spell to break free!
(Hint: Take a look at the total and build the song so the number of beats is correct. And be creative with your note placement!)

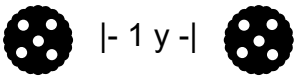


Ho- cus Po- cus Hol- der- busch! Ho- cus Po- cus Hol- der- busch!

___+____+___+_½_+___+____+_____ + ____+____+____+____+_2_+___+_____= __18__

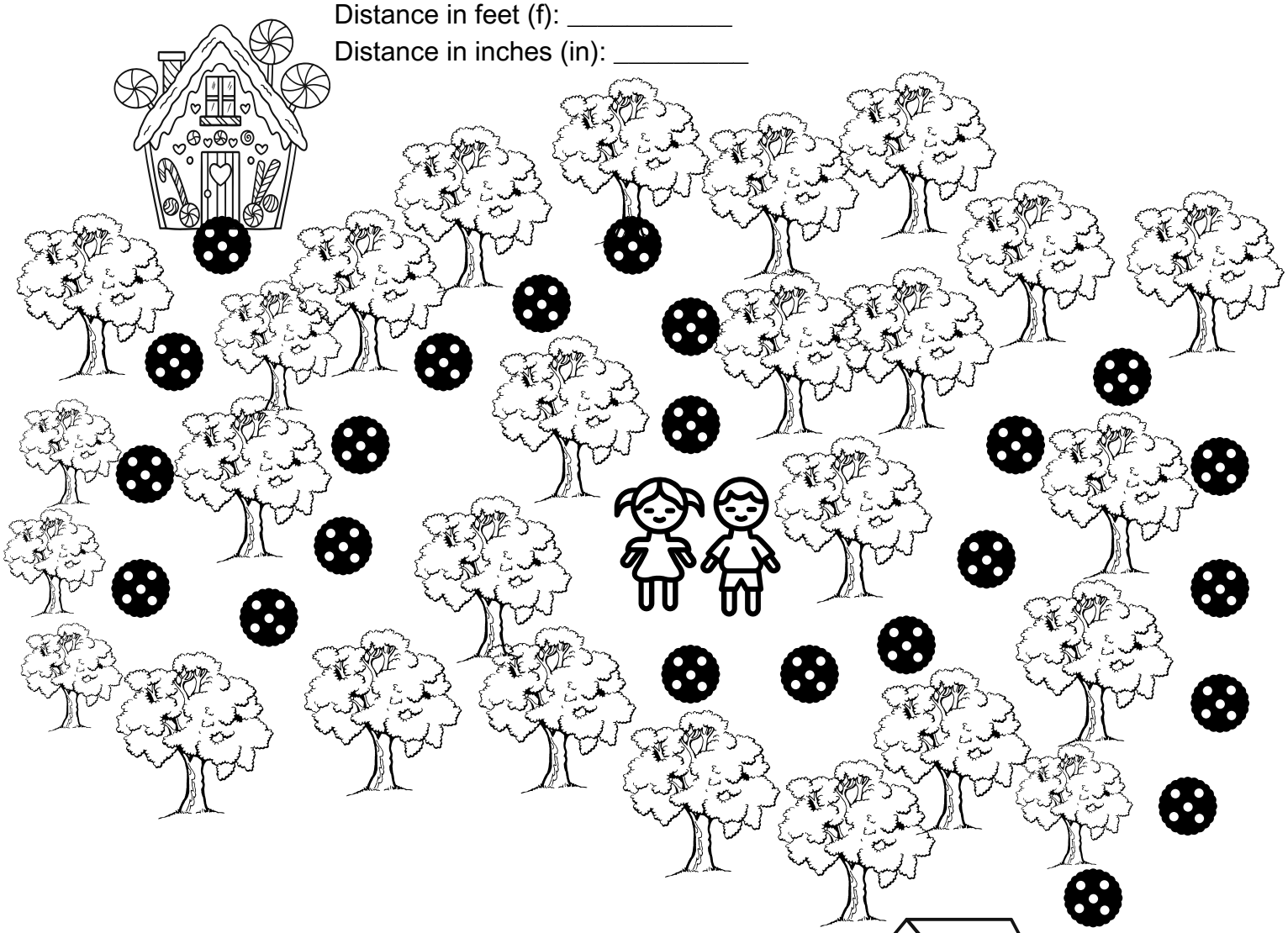
HANSEL AND GRETEL IN THE WOODS

Hansel and Gretel and lost in the woods! Using the map below, calculate the distance they have to travel to get home and the distance they have to travel to get to the Witch's Candy House.

The distance between each bread crumb is 1 yard  |- 1 y -|

To convert yards to feet, divide by 3 To convert feet to inches, multiply by 12

Distance in yards (y): _____
Distance in feet (f): _____
Distance in inches (in): _____



Distance in yards (y): _____
Distance in feet (f): _____
Distance in inches (in): _____

Redlands Symphony

CA State Standard Aligned: Mathematics, Grade 5: 5.MD.1

HANSEL AND GRETEL IN THE WOODS

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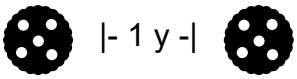
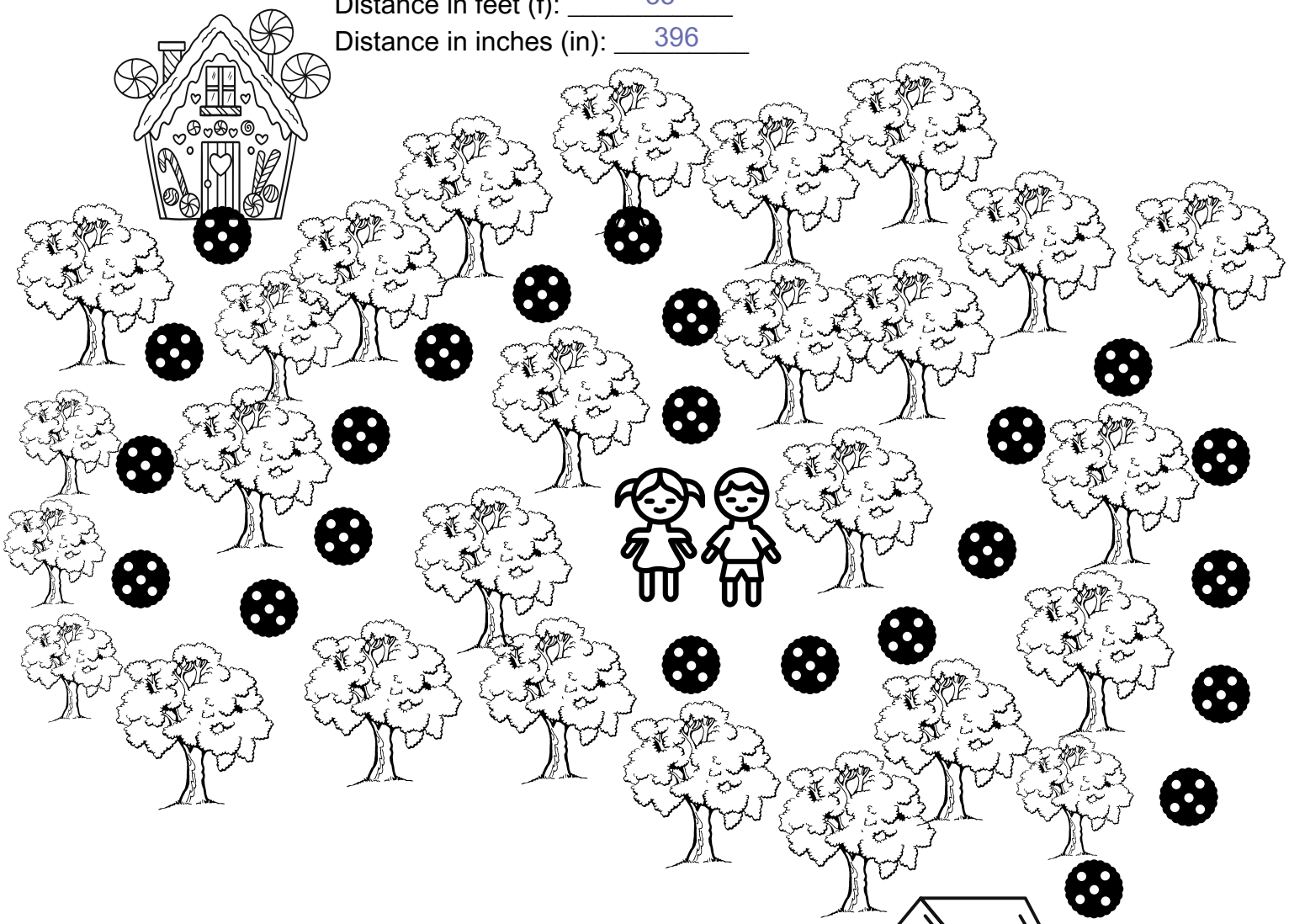
The distance between each bread crumb is 1 yard  |- 1 y -|

To convert yards to feet, divide by 3 To convert feet to inches, multiply by 12

Distance in yards (y): 11
Distance in feet (f): 33
Distance in inches (in): 396



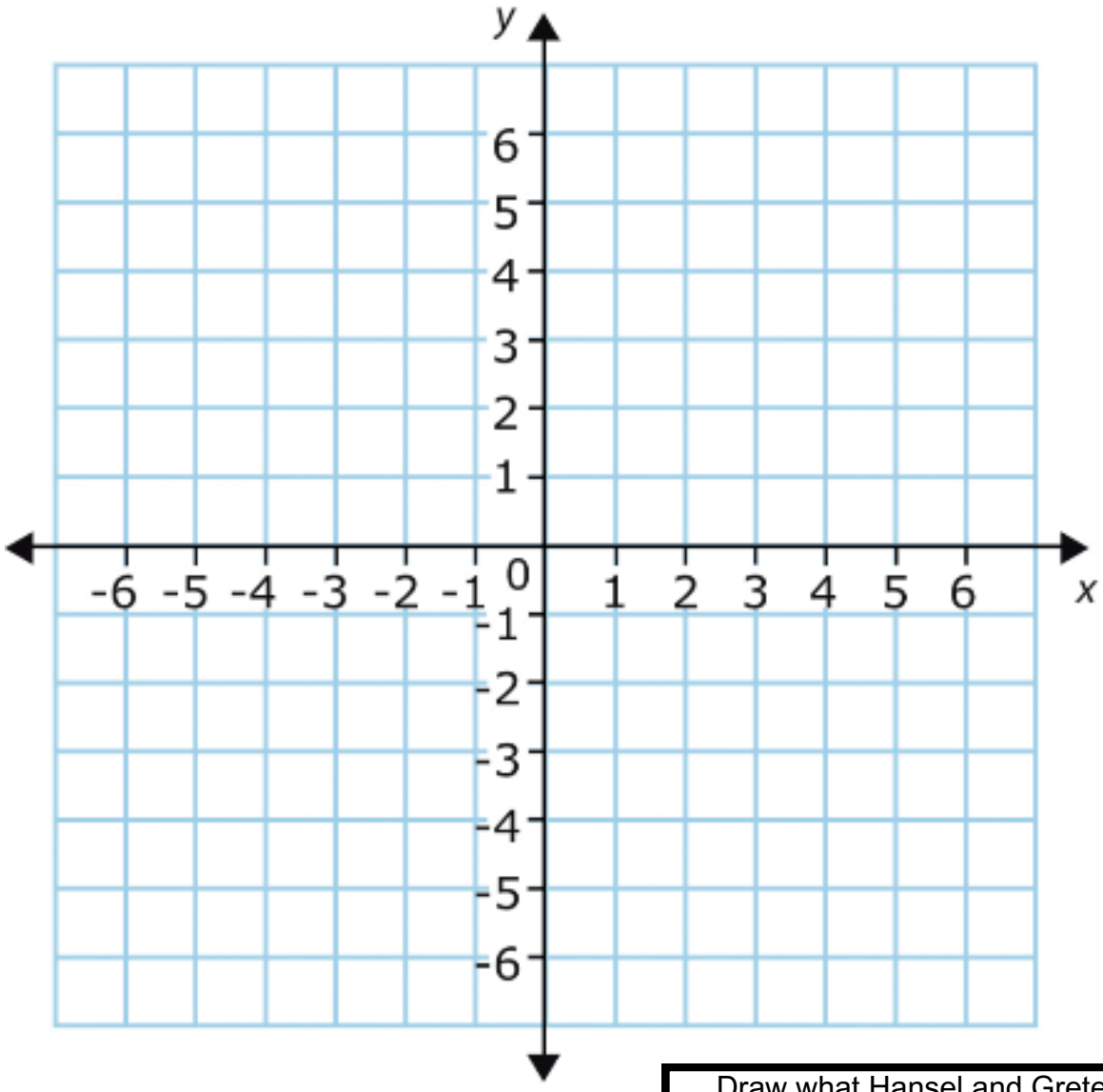
Distance in yards (y): 10
Distance in feet (f): 30
Distance in inches (in): 360

CA State Standard Aligned: Mathematics, Grade 5: 5.MD.1

HELP HANSEL AND GRETEL ESCAPE!

In the story of *Hansel and Gretel*, the evil Witch punishes Hansel and Gretel for eating her candy house. As part of his punishment, the Witch locks Hansel and Gretel behind some bars until she is ready to deal with them.

Plot the coordinates below then connect the dots to give Hansel and Gretel what they need to escape!



Line 1: (-6,5) to (-6,-4)
Line 2: (-6,0) to (-4,5)
Line 3: (-6,0) to (-4,-4)
Line 4: (-2,5) to (-2,-4)
Line 5: (-2,5) to (1,5)
Line 6: (-2,1) to (0,1)
Line 7: (-2,-4) to (1,-4)
Line 8: (3,5) to (5,3)
Line 9: (5,3) to (7,5)
Line 10: (5,3) to (5,-4)

Draw what Hansel and Gretel need to escape!

Redlands Symphony

CA State Standard Aligned: Mathematics, Grade 5:5.G.1

HELP HANSEL AND GRETEL ESCAPE!

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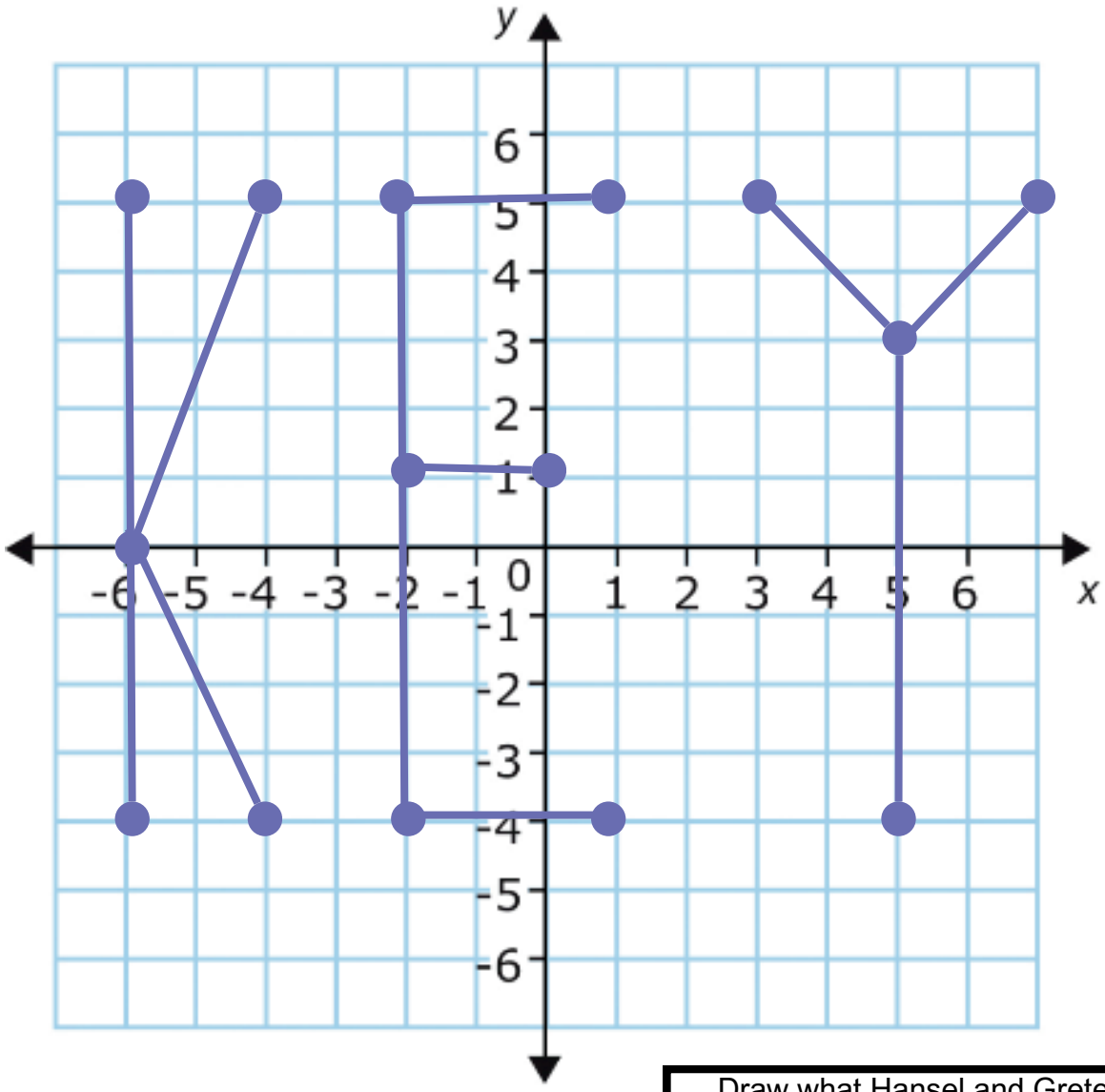

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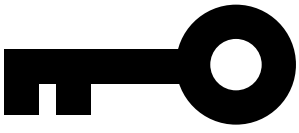
Line 5: (-2,5) to (1,5)
Line 6: (-2,1) to (0,1)
Line 7: (-2,-4) to (1,-4)
Line 8: (3,5) to (5,3)
Line 9: (5,3) to (7,5)
Line 10: (5,3) to (5,-4)

Draw what Hansel and Gretel need to escape!



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CA State Standard Aligned: Mathematics, Grade 5:5.G.1