LESSON MAKER PRO

Pick Your Chance

Find probabilities from pictures.

GRADE 3 · 3.DA.A.16.a

3.DA.A.16.a "Determine a simple probability from a context that includes a picture."

NAME _____ DATE _____

COUNT AND COMPARE

When every item has the same chance of being picked, count the pictures that match what you want. Then count all the pictures. Write the probability as matching pictures / all pictures.

WORKED EXAMPLE

Each picture stands for one ticket in a bag. You pick one ticket without looking. What is the probability of picking a Moon ticket?

Tickets in the Bag

Moon	★
Sun	★ ★ ★ ★ ★

Key: ★ = one ticket

1. Count the Moon tickets: 1.
2. Count all the tickets: 1 + 5 = 6.
3. Write matching tickets / all tickets: 1/6.

Answer: 1/6

PRACTICE 6 problems

1 Each picture stands for one equally likely sticker. What is the probability of picking a Rocket sticker?

Stickers

Rocket	★ ★ ★
Planet	★ ★ ★ ★

Key: ★ = one sticker

ANSWER _____

2 Each picture stands for one equally likely game card. What is the probability of picking a Dragon card?

Game Cards

Dragon	■ ■ ■ ■
Robot	■ ■ ■ ■

Key: ■ = one card

ANSWER _____

3 Each picture stands for one equally likely bookmark. What is the probability of picking a Cat bookmark?

Bookmarks

Cat	▲ ▲
Dog	▲ ▲ ▲
Bird	▲ ▲ ▲ ▲

Key: ▲ = one bookmark

ANSWER _____

4 Each picture stands for one equally likely prize ticket. What is the probability of picking a Puzzle ticket?

Prize Tickets

Ball	◆ ◆ ◆ ◆
Yo-yo	◆ ◆ ◆ ◆
Puzzle	◆ ◆

Key: ◆ = one ticket

ANSWER _____

5 Each picture stands for one equally likely pencil. What is the probability of picking a Stripe pencil?

Pencils

Dots	● ● ● ●
Zigzag	● ● ● ●
Stripe	● ● ●

Key: ● = one pencil

ANSWER _____

6 Each picture stands for one equally likely button. What is the probability of picking a Star or Heart button?

Buttons

Star	■ ■ ■ ■
Heart	■ ■ ■ ■
Flower	■ ■ ■ ■

Key: ■ = one button

ANSWER _____

APPLY IT Show your work

1 At a school fair, you pick one prize slip from a bag without looking. Each picture stands for one equally likely slip. What is the probability of picking a Kite slip?

Fair Prize Slips

Kite	★ ★ ★ ★
Bubbles	★ ★ ★
Chalk	★ ★ ★ ★

Key: ★ = one slip

ANSWER _____

2 Your class has surprise read-aloud cards in a box. Each picture stands for one equally likely card. If you pick one card without looking, what is the probability of picking a Mystery card?

Read-Aloud Cards

Mystery	◆ ◆ ◆
Animal	◆ ◆
Adventure	◆ ◆ ◆ ◆

Key: ◆ = one card

ANSWER _____

CHALLENGE One step up

Each picture stands for one equally likely ticket. You pick one ticket without looking. What is the probability that it is not a Frog ticket? Give the probability and explain your answer in one sentence.

Tickets

Frog	▲ ▲
Turtle	▲ ▲ ▲
Rabbit	▲ ▲ ▲ ▲

Key: ▲ = one ticket

WORK SPACE AND ANSWER

Pick Your Chance

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Each picture stands for one equally likely sticker. What is the probability of picking a Rocket sticker?	**3/7**
2	Each picture stands for one equally likely game card. What is the probability of picking a Dragon card?	**4/8**
3	Each picture stands for one equally likely bookmark. What is the probability of picking a Cat bookmark?	**2/9**
4	Each picture stands for one equally likely prize ticket. What is the probability of picking a Puzzle ticket?	**2/10**
5	Each picture stands for one equally likely pencil. What is the probability of picking a Stripe pencil?	**3/11**
6	Each picture stands for one equally likely button. What is the probability of picking a Star or Heart button?	**8/12**

PART 2 · APPLY IT

1. **4/11** There are 4 Kite slips and 11 slips in all. The probability is 4/11.
2. **3/9** There are 3 Mystery cards out of 9 cards in all. The probability is 3/9.

CHALLENGE

The probability is 7/9 because 7 of the 9 tickets are not Frog tickets.

Accept equivalent fractions, such as 1/2 for 4/8 and 1/3 for 3/9. For the challenge, the explanation should count both Turtle and Rabbit tickets.