Home:_____

Date:_____

Finish Factorial Worksheet

http://www.mathvizza.com

page 633 #9-23

Bell Work

Directions: Please simplify the following.

1. $\left(\frac{2}{3}\right)^{-2}$

2. $\left(4xy^2\right)^{-2} \cdot \left(3xy^2\right)$

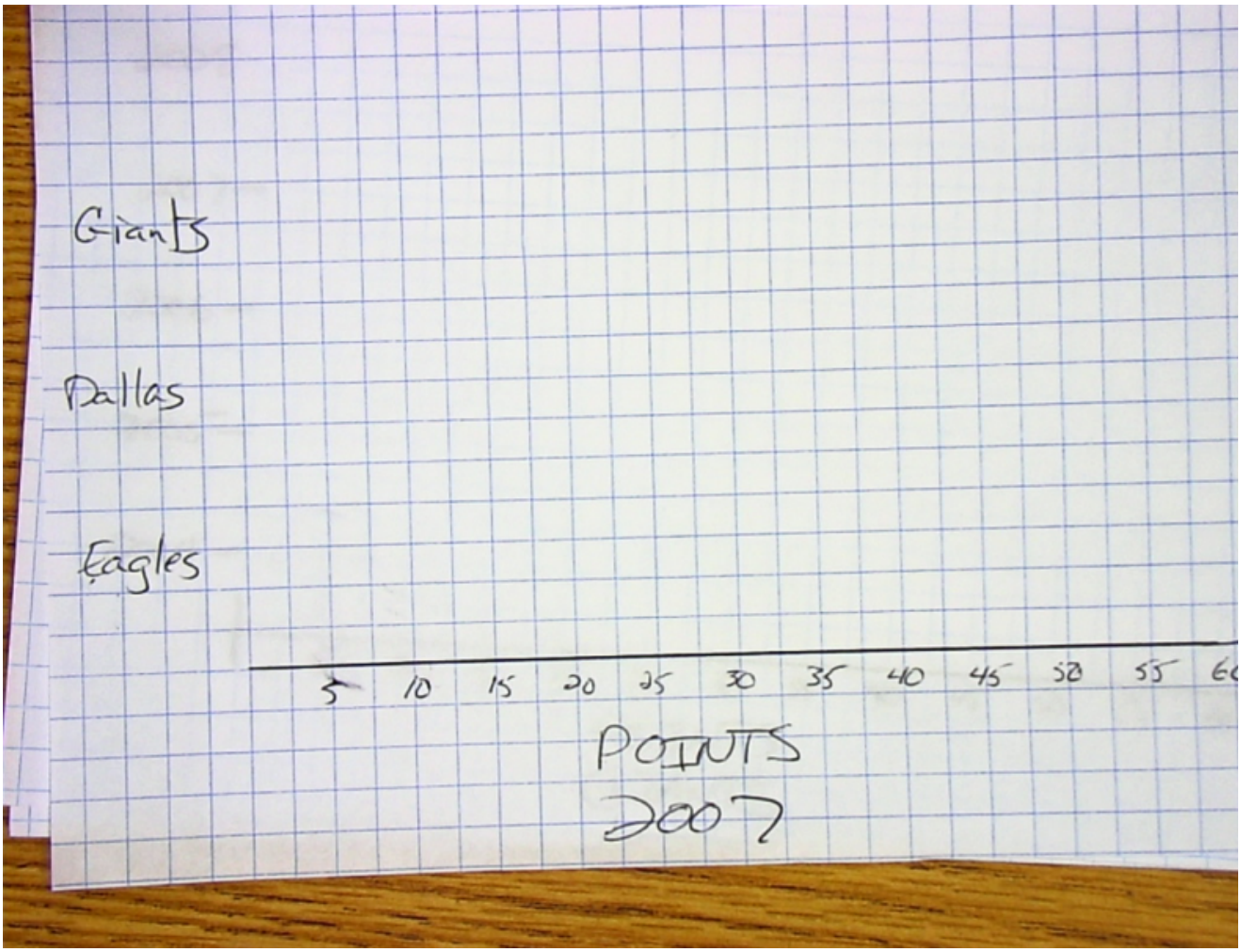
3 min

$4^{-2}x^{-2}y^{-4} \cdot 3xy^2$

$\frac{1}{16x^2y^4} \cdot \frac{3xy^2}{1}$

$= \frac{3}{16xy^2}$

$-\left(\frac{2}{3}\right)^2 = \frac{9}{4}$


Giants
Dallas
Eagles
5
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POINTS
2007

Objectives

1. The students will simplify expressions with factorials.
2. The students will comprehend basic vocabulary in probability.
3. The students will compute basic theoretical probabilities.

Factorials

Definition n! $n \cdot (n-1) \cdot (n-2) \cdot (n-3) \cdots \cdot 1$

$10 \cdot 9 \cdot 8 \cdot 7 \cdot 6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1 = 3628800$

Examples

1. $4!$

$4 \cdot 3 \cdot 2 \cdot 1$

24

2. $\frac{6!}{2!} = \frac{6 \cdot 5 \cdot 4 \cdot 3 \cdot 2 \cdot 1}{2 \cdot 1} = 360$

Let's go to the Worksheet  6 min

Answers  2 min

Vocabulary

Trial -

Experiment -

Outcome-

4 min

Vocabulary

Event - prescribed outcome or prescribed group of outcomes

Sample Space -

Experimental Probability -

Theoretical Probability -

4 min

theoretical probability

sample space

trial

event

experiment

outcome

# of successful outcomes

Bob studies rolling a die. He is curious if he will roll an even number. He rolls the die. The result is a 4. The chance of this happening is 1 out of 6.

Sue studies flipping two coins. She flips the first coin and then the second coin. The first is a head and the second is a tail. The chance of this happening is 2 out of 4.

Set Up a Page for Your Homework

Theoretical Probability

Example 1. Page 633 #9

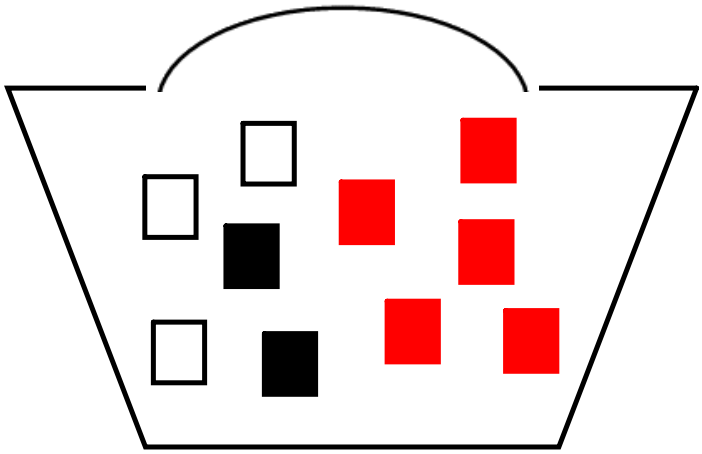
A bag contains 3 white cards, 2 black cards, and 5 red cards. Find the probability of each event for one draw.

#9. a white card

Example 2. **Similar** to Page 633 #20

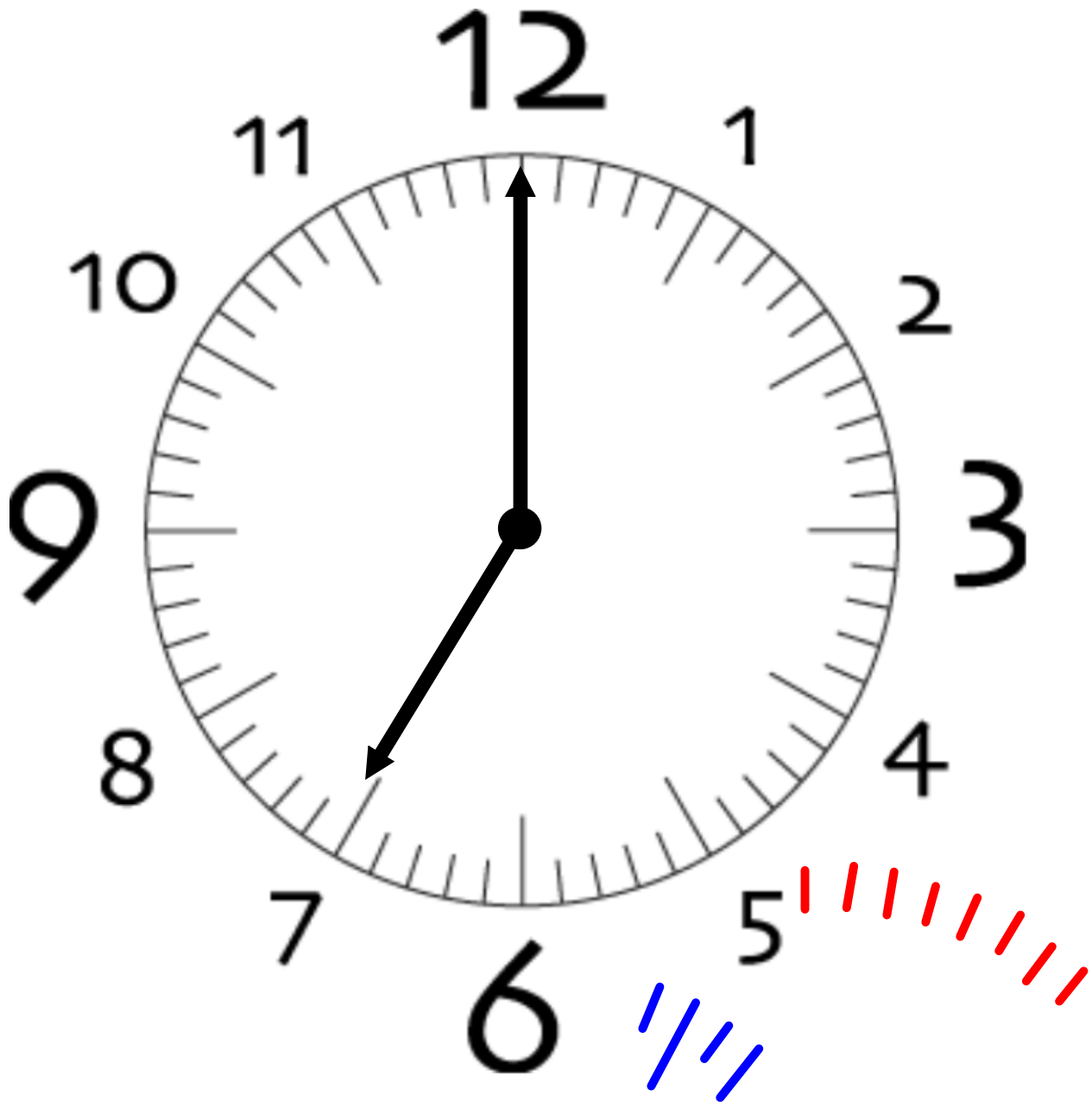
A bus arrives at Chirag's house anytime from 7:00 to 7:07am. If all times are equally likely, find the probability that Chirag will catch the bus if he begins waiting at the given times.

7:04 am



number of succesful outcomes
sample space

_____ = _____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