MIT G

Packet By: Yale B & Harvard

TOSSUPS

### TOSSUP 1

In general relativity it describes the rank two tensor that is used to change contravariant vectors into covariant ones. In mathematics it is any function from two elements in a set to the nonnegative real numbers such that it is the same regardless of the order of the elements, vanishes if the elements are identical, and obeys the triangle inequality. FTP identify this word, which more colloquially also describes a system of measurement used in most of the world.

ANSWER: METRIC\_

### TOSSUP 2

Pirates great Willie Stargell said that trying to hit this pitcher's curveball was like trying to eat coffee with a fork. Columnist Bill Conlin remarked that his pitching for the woeful Phillies of the early 70's was like a Pulitzer Prize winner writing for Jack and Jill. Though he isn't Grove or Gomez, he is a Hall-of-Famer nicknamed Lefty. FTP, name this first player to win four Cy Young Awards.

ANSWER: Steven Norman CARLTON

#### TOSSUP 3

John II, the good, Charles V, the wise, Charles VIII, the victorious, Louis XI, the cruel, and Charles VIII, the affable were all kings from this royal house. For ten points, name this French house which also included Francis II, who married Mary, Queen of Scots, and ended with the assassination of Henry III in 1574.

ANSWER: House of VALOIS

## **TOSSUP 4**

An early application of this physics principle was to explain railway sway, in which two trains moving in opposite directions lean towards each other. Among other modern phenomena, it also explains how baseball pitchers can throw curveballs and how airplanes can fly. FTP, name this principle, which states that the pressure in a moving stream of fluid is less than that of the surrounding fluid.

ANSWER: The BERNOULLI PRINCIPLE or THEOREM

#### TOSSUP 10

Like Martin Luther, he accepted the supreme authority of the Scriptures, but applied it more rigorously and comprehensively to all doctrines and practices. He was the only major reformer of the 16th century whose movement did not become a church. FTP, name this man, a big player in the Swiss Prostant Reformation, whose influence were most significant in the city of Zurich, where a statue of him still stands today.

ANSWER: Huldrych (Ulrich) \_ZWINGLI\_

### TOSSUP 11

He holds the distinction of having a #1 song on the Billboard charts in three different decades. He is one of the most obese rock stars, once weighing over 300 pounds. Born Marvin Lee Adair, his latest album is "Welcome to the Neighborhood." For ten points, name this famous musician who recorded "Bat out of Hell"

ANSWER: MEATLOAF

### TOSSUP 12

Herodotus definitively placed it on Mount Mycale, but for security it was later moved to a location near Ephesus but returned to the mountain in 373 BC. For ten points, name this location, the meeting place of the twelve member-cities of the Ionian League.

ANSWER: PANIONIUM\_

## TOSSUP 13

An American painter and etcher who assimilated Japanese art styles and championed modern art, he did much of his work in England, where he became friends with Dante Gabriel Rosetti and Oscar Wilde. FTP, name this artist, whose works include Nocturne in Black and Gold: The Falling Rocket, Symphony in White No. 1: The White Girl, and Arrangement in Grey and Black, Portrait of the Artist's Mother.

ANSWER: James Abbott McNeill WHISTLER

## TOSSUP 14

Openly critical of aristocratic privilege and portraying the abuse of power by aristocrats, this comedy is the story of a resourceful, cunning, and scheming valet, who attempts to save his fianc=E9e, Suzanne, from the clutches of his master, Almaviva, who wants to seduce her. For ten points, name this comedy by Pierre-Augustin Caron de Beaumarchais and later turned into an opera by Mozart.

ANSWER: \_LE MARIAGE DE FIGARO\_ or \_THE MARRIAGE OF FIGARO\_

### TOSSUP 20

This American social reformer dedicated himself to the plight of the unemployed following the Panic of 1893. He lobbied Congress to spend on public construction in hopes of providing more employment. To generate popular support for these federal relief measures, he led an "army" of unemployed from Ohio to Washington, D.C. in 1894. FTP, name this ill-fated reformer who was arrested, fined and incarcerated for trespassing on the grounds of the U.S. Capitol.

ANSWER: Jacob Sechler COXEY

#### TOSSUP 21

The museum in his former Paris home contains many of his original experimental materials, including some of the tartaric acid with which he demonstrated optical isomerism, swan-neck flasks with which he disproved the theory of spontaneous generation, and the spinal cords of rabbits afflicted with rabies, with which he produced a vaccine against that disease. FTP, name this founder of germ theory who also developed the anthrax vaccine.

ANSWER: Louis PASTEUR

#### TOSSUP 22

The practice of bungee jumping originates in a traditional tribal test of courage practiced on this small island-nation close to New Zealand. Villagers from this nation, formerly known as the New Hebrides, plunge headfirst from high platforms with vines tied to their ankles to break their fall at the last moment. FTP, name this island nation, which makes its capital in the city of Port Vila and uses the Vatu as its chief monetary unit.

ANSWER: Republic of VANUATU

# TOSSUP 23

It ends with an ethereal and virtually themeless alternation of E minor and G-sharp minor chords, featuring wordless six-part harmony in women's voices. It begins with a pounding, insistent march which features a french horn solo and is written in a 5/4 time signature. There are seven movements rather than eight, because it was composed before Clyde Tombaugh earned his fame in 1930. FTP, name this astrological musical suite by Gustav Holst.

ANSWER: The PLANETS\_ (accept NEPTUNE\_, The Mystic on early

## **TOSSUP 24**

Although more than half the population is urban, agriculture, especially dairy farming, remains the chief industry. Its larger cities include Tartu and Parnu, and its largest minority ethnic group is the Finns. This is not surprising since it borders the Baltic Sea and the Gulf of Finland. FTP, name this northernmost of the Baltic republics, with capital at Tallinn.

ANSWER: \_ESTONIA\_