

# The 2018 Scottie



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## Packet Nine

### TOSSUPS

**1. In quantum mechanics, this law is replaced by Ehrenfest's equation since this law becomes increasingly worse at higher velocities. This law can be used to derive the acceleration of a classical Atwood machine. The Tsiolkovsky (\*) rocket equation is a generalization of this law. One consequence of this law is that impulse is equal to mass times change in velocity. For 10 points, name this law that states force is equal to mass times acceleration. (MR)**

ANSWER: Newton's Second law of motion

**2. These things were all constructed by Rockwell International and have played host to squirrel monkeys, rats, and ants. Windows on these objects are tinted with the same ink that is used on American banknotes. Bill Clinton is the only US President who has been present during the operation of one of these vehicles; this occurred when he witnessed the return to (\*) Earth of John Glenn on the *Discovery*. For 10 points, the *Atlantis* is one of five of these space vehicles that have logged over 500 million miles. (TG)**

ANSWER: Space Shuttle Orbiter

**3. This island appeared as Mayo on early maps but Columbus called it La Concepcion. After gaining independence in 1979, this Commonwealth nation's prime minister Eric Gairy was removed by a coup enacted by the New Jewel Movement led by (\*) Maurice Bishop. Fearing Cuban involvement after Marxists deposed and executed Bishop, President Ronald Reagan ordered Operation Urgent Fury triggering the invasion of, for 10 points, what Caribbean country with capital of Saint George's? (TG)**

ANSWER: Grenada

4. In a Jean-Leon Gerome painting, a sculptor performs this action to an ivory statue. This action is performed by two rectangular figures in a Brancusi sculpture, as well as by the central figures in the photograph (\*) *V-J Day in Times Square*. One work titled after this action includes a gold leaf background, while another depicting Paola and Francesca appears in *The Gates of Hell*. For 10 points, name this show of affection which titles works by Gustav Klimt and Auguste Rodin. (TR)

ANSWER: kiss [accept word forms such as “kissing”]

5. In one poem, this writer compares the title object to an “old soldier watching from his tent.” In another poem by this author of “The Flawed Bell”, the title birds let their “great white wings/ Drag beside them like oars”. That poem, (\*) “The Albatross”, appears in this poet’s most famous collection, which also contains “Wine” and “Spleen and Ideal”. For 10 points, name this French poet and translator of Poe who wrote *Les Fleurs du Mal*. (GP)

ANSWER: Charles Pierre Baudelaire

6. One cult in Lykaion associated with this god practiced cannibalism and were believed to be werewolves. Although he’s not Apollo, this Greek god was the patron of oracles at Dodona and Siwa. This deity once turned into a swan to seduce the (\*) princess Leda. This god threw a thunderbolt to stop Phaethon from piloting Helios’s chariot. For 10 points, name this Greek god of the sky, who was also king of the gods. (MR)

ANSWER: Zeus [Accept Jupiter before “Greek”]

7. During fermentation, lactic acid undergoes a specific type of this thing called disproportionation. Species involved in this type of reaction are plotted on Frost diagrams. Potassium permanganate is an indicator for these reactions, and the formation of (\*) rust and the burning of fire are general examples of it. Writing half-reactions and adding molecules of water are some of the steps involved in balancing these reactions. For 10 points, name these reactions involving electron transfer. (MR)

ANSWER: redox [or reduction-oxidation reaction]

8. Operation Staunch was a diplomatic effort advising against the actions of this event. Fawn Hall helped destroy evidence in this event, which was revealed by the Lebanese Magazine *Ash-Shiraa*. A commission led by John Tower led to the conviction of (\*) John Poindexter and Caspar Weinberger for their roles in this event, which violated the Boland Amendment. For 10 points, name this Reagan-era scandal involving the sale of arms to a Middle Eastern country to fund Nicaraguan rebels. (RN)

ANSWER: Iran-Contra Affair

9. In one play by this writer, Vera claims to have seen six angels at the funeral service of Floyd “Schoolboy” Barton. Another work by this playwright sees Sutter’s ghost appear when Boy Willie tries to sell the title object. This author of *Seven Guitars* also created the trash collector (\*) Troy Maxson, who was formerly a baseball star. For 10 points, name this writer of the Pittsburgh Cycle, which includes plays like *The Piano Lesson* and *Fences*. (GP)  
ANSWER: August Wilson [accept Frederick August Kittel Jr.]

10. In Ambrose Bierce’s short story “Moxon’s Master”, one of these objects kills the title man after he wins a game of chess. Two of these things are named SHOCK and SHROUD in Thomas Pynchon’s *V.*, and Rick Deckard is hired to (\*) “retire” these objects in a Philip K. Dick novel. Rossum makes these objects from protoplasm in Karel Čapek’s play *R.U.R.* Isaac Asimov’s three laws concern, for 10 points, what type of programmable machines? (GP)  
ANSWER: robots [accept androids or automations or replicants]

11. Operation Spring Awakening, considered the last major Nazi offensive, took place in this nation, and a revolution in this nation saw the freeing of Cardinal Mindszenty. This nation lost much of its territory in the 1920 Treaty of Trianon and its (\*) Arpad Dynasty was established by its first king Stephen the First. Miklos Horthy led this nation in World War 2 and Imre Nagy led it during its 1956 revolution. For 10 points name this central European nation with capital at Budapest.(RN)  
ANSWER: Hungary [or Magyarország]

12. This river’s source lies in the Bayan Har mountains, and it was purposely flooded to end the Siege of Kaifeng. This river, which cuts through the Loess plateau, forms the Ordos loop before flowing to the Gulf of Bohai. The Grand Canal linked this river to the (\*) Yangtze, and it is nicknamed China’s Sorrow due to its tendency to flood. For 10 points, name this colorfully-named second-longest Chinese river which flows into a namesake sea. (RN)  
ANSWER: Yellow River [or Huang He]

13. The “neo“ version of this philosophical movement centers on the idea that truth is dependent on context. One member of this school used it to theorize “learning by doing,” while another wrote a work explaining its namesake “method” through the analogy of a man chasing a (\*) squirrel around a tree. That work described this movement as “a new name for some old ways of thinking.” For 10 points, name this philosophical tradition espoused by John Dewey and William James. (TR)  
ANSWER: pragmatism

14. A playwright named Henry and an actress named Annie get divorces in order to marry each other in this author's *The Real Thing*. In another work by this playwright, the setting alternates between the past and present in Sidley Park and explores the lives of Hannah Jarvis (\*) and Septimus Hodge. In addition to that play, *Arcadia*, this playwright is also known for a tale of two characters from Shakespeare's Hamlet. For 10 points, name this playwright who authored *Rosencrantz and Guildenstern are Dead*. (DD)

ANSWER: Tom Stoppard

15. The central figure in this painting was also used in its artist's *Calumny of Apelles*. On the right, a figure sometimes identified as Pomona stands in front of an orange grove, while on the left Zephyrus blows wind to guide the central figure to (\*) shore. That figure attempts to cover her nude body with her hands and hair as she stands on a seashell. For 10 points, name this Sandro Botticelli painting depicting a Roman goddess emerging from the sea. (TR)

ANSWER: *The Birth of Venus* [or *Nascita di Venere*]

16. Hector Berlioz wrote a ninety-minute long work of this type for 100 strings, 20 woodwinds, 12 horns, and several hundred choral members. Benjamin Britten wrote one of these as an (\*) anti-war statement that intertwined traditional lyrics with poems by Wilfred Owen. Franz Xaver Sussmayr completed perhaps the most famous of these compositions after it was left unfinished by Mozart. For 10 points, name these traditional masses for the dead. (TG)

ANSWER: requiem

17. This structure produces the immunostimulatory protein tuftsin, and the Warren shunt connects this structure with the kidney. The "marble" disease that affects this organ is caused by an adenovirus. This organ contains a reserve of monocytes (\*) which can be utilized in case of a (\*) hemorrhagic shock. The Cords of Billroth are found in this organ's red pulp. For 10 points, name this organ that filters and destroys red blood cells. (MR)

ANSWER: spleen

18. This Norfolk, Virginia based group apologized after showing Rudy Giuliani with a milk mustache on three billboards labeled, "Got Prostate Cancer?" This organization became part owner of Seaworld after purchasing the minimum number of shares required to give them a voice at shareholders meetings. This non-profit organization was recently able to pressure Nabisco into redesigning its Barnum (\*) animal crackers packaging. For 10 points, name this activist group whose slogan is "Animals are not ours to eat, wear, experiment on, use for entertainment, or abuse in any other way."(TG)

ANSWER: PETA [or People for the Ethical Treatment of Animals]

19. It was not in Korea, but the use of tactical nuclear weapons was debated by the U.S. in this battle. The over-running of strong points named Gabrielle and Anne-Marie took away one side's use of an airfield in this engagement. The losing side underestimated the ability of forces led by (\*) Vo Nguyen Giap to haul artillery over mountainous terrain in this 1954 battle. For 10 points, name this victory by Viet Minh communists over French expeditionary forces that effectively ended the First IndoChina War. (TG)

ANSWER: Battle of Dien Bien Phu

20. While living in Russia, this man earned his fortune by cornering the market on items such as sulfur and lead during the Crimean War. This man, who claimed he could learn a language in six weeks, collaborated with Frank Calvert, who convinced him to switch his search from Pinarbasi to Hissarlik. A set of (\*) gold jewelry found at this man's excavation site was called "Priam's Treasure" despite predating the civilization this man hoped to find. For 10 points, name this man known for excavating what is believed to be the site of Homeric Troy. (TG)

ANSWER: Heinrich Schliemann

## BONUSES

1. In this experiment, randomly selected individuals in Omaha or Wichita were asked to get a package to someone in Boston. For 10 points each: (OK)

[10] Name this experiment, with which the term “six degrees of separation” is often associated.

ANSWER: **small world** experiment

[10] The small world experiment was conducted by this psychologist, who is perhaps more famous for his experiments on obedience to authority involving electric shocks.

ANSWER: Stanley **Milgram**

[10] In 1961, when the Milgram obedience experiment took place, Milgram related it to the then-current trial of this war criminal in Jerusalem. Hannah Arendt famously wrote about him “in Jerusalem.”

ANSWER: Adolf **Eichmann**

2. Xiao, or filial piety, is the first step towards attaining this virtue of Confucianism. For 10 points each: (TG)

[10] This virtue is exemplified by the good feeling one has when displaying selflessness.

ANSWER: **ren**

[10] This competing philosophy to Confucianism called for harsh punishments to small crimes and promoted strict adherence to the law.

ANSWER: **legalism**

[10] Legalism, Confucianism, and Daoism all became prominent belief systems during this period when seven Chinese kingdoms were feuding.

ANSWER: **Warring States** [accept **Contending States**]

3. One famous painting depicts Anna Olson, the neighbor of the artist, who most likely suffered from Chagot-Marie-Tooth Disease. For 10 points each:(TG)

[10] The model used for Anna was the artist’s wife Betsy, and this painting was titled using Anna’s middle name.

ANSWER: **Christina’s World**

[10] *Christina’s World* was painted by this American artist of *Winter, 1946*.

ANSWER: Andrew **Wyeth**

[10] Wyeth’s style is similar to this American realist painter of *The Gross Clinic* and *Max Schmitt in a Single Scull*.

ANSWER: Thomas **Eakins**

4. This laboratory technique is used to separate mixtures based on size. For 10 points each: (MR)

[10] Name this technique often used to separate pigments.

ANSWER: **chromatography**

[10] Chromatography done in the classroom makes use of this material. This material is made of woody pulp.

ANSWER: **paper**

[10] This value is the ratio of the distance that the pigment traveled to the distance traveled by the solvent front. It is symbolized “R sub F.”

ANSWER: **retardation factor** [or **retention factor**]

5. This show won the Tony award for Best Revival of a Musical in 2016 and features songs such as “Somebody Gonna Love You” and “African Homeland”. For 10 points each: (MP)

[10] Name this musical written by Marsha Norman about an African-American woman’s life in the 20th century American south.

ANSWER: **The Color Purple**

[10] The Color Purple was based upon a book of the same name written by this author.

ANSWER: Alice **Walker**

[10] A film adaptation of the book was made in 1985 by this Academy Award-winning director, also known for films such as *Schindler’s List* and *E.T. the Extra-Terrestrial*.

ANSWER: Steven **Spielberg**

6. For 10 points each, answer these questions about Richard Nixon’s presidency. (PB)

[10] Nixon’s first Vice- President was this Governor of Maryland who resigned due to tax evasion.

ANSWER: Spiro **Agnew**

[10] Nixon became President by defeating this Vice President under Lyndon Johnson.

ANSWER: Hubert **Humphrey**

[10] Nixon unsuccessfully tried to prevent the publication of this report on Vietnam. It was leaked from the Secretary of Defense’s office to the *New York Times*.

ANSWER: The **Pentagon Papers**

7. This language was originally called Oak. This object-oriented programming language is owned by Oracle. For 10 points each: (MR)

[10] Name this programming language whose logo is a coffee cup.

ANSWER: **Java**

[10] Java can create applications to run in web pages, which are given this name. Similarly named things on the iPhone include Camera and Messages.

ANSWER: **applets**

[10] Java notably lacks these constructs, whose value refers to a value stored elsewhere within the code.

ANSWER: **pointers**

8. During his life, this author published his stories almost exclusively in pulp magazines like *Weird Tales*. For 10 points each: (OK)

[10] Name this author, whose works such as “The Dunwich Horror” influenced much of later 20th century genre fiction.

ANSWER: H.P. **Lovecraft**

[10] Lovecraft’s most famous creation is this Great Old One, who is said to sleep in the underwater city of R’lyeh.

ANSWER: **Cthulhu** (note: be generous with pronunciation)

[10] One of Lovecraft’s longest works, “At the Mountains of Madness”, is set on this continent. In it, a group of explorers come across a hidden city that was home to the Elder Things.

ANSWER: **Antarctica**

9. This man is often regarded as the father of sociobiology. For 10 points each: (MR)

[10] Name this Harvard University professor and author of *On Human Nature*.

ANSWER: Edward Osborne **Wilson**

[10] Wilson’s main field of study is myrmecology, or the study of these insects in the order Hymenoptera.

ANSWER: **ants**

[10] In an interview published in *New Scientist*, Wilson argued that this thing had to be abolished for the “sake of human progress.” The conflict thesis maintains that there is an intrinsic incompatibility between science and this cultural system.

ANSWER: **religion**



10. In the beginning of this work, the narrator tries to climb a mountain, but it is blocked by a she-wolf, lion, and leopard. For 10 points each: (DD)

[10] Name this work in which the narrator is led through inferno, purgatorio, and paradiso.

ANSWER: *The **Divine Comedy*** [or *La **Divina Commedia***]

[10] This author of the *Divine Comedy* also wrote *La Vita Nuova*, which details his meeting and love of Beatrice.

ANSWER: **Dante** degli **Alighieri** [accept either underlined name]

[10] In the ninth circle of hell in *Inferno*, Dante witnesses Lucifer chewing on Judas, Cassius, and this other sinner.

ANSWER: **Brutus** [or Brute; or Lucius Junius **Brutus**; or Marcus Junius **Brutus**]

11. Most of the mass of a proton or neutron is a result of this force's field. For 10 points each: (MR)

[10] Name this fundamental force that holds atomic nuclei together.

ANSWER: **strong**

[10] The force carrier for the strong force is this 1-spin gauge boson.

ANSWER: **gluon**

[10] Gluons also mediate the change of this characteristic of quarks. Quarks have three forms of this characteristic, including green, blue, and red.

ANSWER: **color**

12. This woman was married to Trevor Engelson from 2011 to 2013. For 10 points each: (OK)

[10] Name this woman who played Rachel Zane on *Suits*. She became the Duchess of Sussex following a well-publicized wedding in May 2018.

ANSWER: Meghan **Markle**

[10] The wedding of Meghan Markle and Prince Harry is the third British royal wedding to occur since 2000. It was preceded by Prince William's marriage and by Prince Charles' wedding to this woman, with whom he had been having an affair while married to Diana Spencer.

ANSWER: **Camilla** Parker Bowles

[10] In other royal wedding news, Kit Harington married Rose Leslie in 2018. They are both known for starring in this HBO series, on which Harington plays Jon Snow.

ANSWER: **Game of Thrones**

13. For 10 points each, answer these questions about the Granite State.(PB)

[10] The Granite State is the nickname given to this northeastern state whose capital is Concord.

ANSWER: **New Hampshire**

[10] This mountain range contains Mount Washington, the highest peak in New Hampshire.

ANSWER: The **White** Mountains

[10] This is the State motto of New Hampshire. These words were spoken by Revolutionary War General John Stark during a toast at the 32nd anniversary of the Battle of Bennington, which actually took place in Vermont.

ANSWER: **“Live free or die”**

14. A law named for this politician restricted the power of the Catholic clergy and military of his nation. For 10 points each: (RN)

[10] This liberal Mexican president overthrew Emperor Maximilian and created the Plan of Ayutla to oust Santa Anna.

ANSWER: Benito **Juarez**

[10] Juarez’s forces defeated the French at this battle to help secure their independence. This battle is celebrated yearly with festivities on May 5th.

ANSWER: Battle of **Puebla** [do not prompt or accept Pueblo]

[10] Juarez was succeeded by this man. This man would go on to serve for 26 years before being removed from power in the Mexican Revolution.

ANSWER: Jose de la Cruz Porfirio **Diaz** Mori

15. Answer these questions about an author born on Trinidad and Tobago. For 10 points each:

[10] This 2001 Nobel Laureate of Indian descent wrote *In a Free State* and *A Bend in the River*.

ANSWER: V. S. **Naipaul**

[10] Naipaul drew inspiration from his father’s life to write this story about a man’s life-long struggle to have his own home.

ANSWER: **A House for Mr. Biswas**

[10] This other Caribbean author from the Dominican Republic wrote the short story collection *This is How You Lose Her*, as well as the 2008 Pulitzer winner *The Brief Wondrous Life of Oscar Wao*.

ANSWER: Junot **Diaz**

16. Answer some questions about terms useful in vocal music, for 10 points each.

[10] Singing without any form of musical accompaniment is referred to by this term.

ANSWER: **a capella**

[10] This is the term for singing as though the notes are all tied together. It is the opposite of staccato.

ANSWER: **legato**

[10] When singing is focused on the pureness of the sound as opposed to emotion or acting, it is called this Italian term that literally means “beautiful singing.”

ANSWER: **bel canto**

17. In one version of Irish lore about this entity, the grandson of Noah was saved by being transformed into a creature that lives in water. For 10 points each: (TG)

[10] Name this creature that knew everything there was to know after eating nine hazelnuts that fell from nine hazelnut trees.

ANSWER: The **Salmon of Knowledge**

[10] This future leader of the Fianna gained all the Salmon’s knowledge when he sucked his thumb after it was burned while he cooked the salmon.

ANSWER: **Finn MacCool** [or **Fionn mac Cumhail**]

[10] Finn threw part of the coastline of Ireland into the sea creating this formation of hexagonal tubes of rock so that he could cross over to Scotland and fight Benandonner.

ANSWER: The **Giant’s Causeway**

18. This ruler supposedly burst into tears upon receiving a mourning ring made using his daughter’s hair. For 10 points each: (TG)

[10] The death of his daughter Princess Amelia contributed to the poor health and eventual insanity of this British ruler. His reign saw the loss of Britain’s American colonies.

ANSWER: King **George** William Frederick **III** [prompt on George or George Hanover]

[10] This man was Prime Minister of England under George III during the Revolutionary War. He infamously proposed the Coercive Acts that the colonists viewed as “Intolerable”.

ANSWER: Lord Frederick **North**

[10] Margaret Thatcher was not the first PM to have trouble with this chain of islands. North almost took Britain to war with Spain in a Crisis named for this archipelago.

ANSWER: **Falkland** Islands

19. (OK) This author wrote the longest-running play in the world, and, at least according to Guinness, is the best-selling novelist of all time. For 10 points each:

[10] Name this most-translated author in the world, whose best-selling novel is *And Then There Were None*.

ANSWER: Agatha Mary Clarissa **Christie** [or Agatha **Miller**; or Mary **Westmacott**]

[10] This creation of Christie's is the only fictional character to have had an obituary in the *New York Times*. He is a Belgian detective.

ANSWER: Hercule **Poirot**

[10] A famous work of Christie's featuring Poirot is this novel, in which it's revealed that every passenger onboard the titular train helped to kill Cassetti.

ANSWER: **Murder on the Orient Express**

20. For 10 points each, name these Nazis who were in Adolf Hitler's inner circle. (SK)

[10] This man was one of the few Nazis close to Hitler who survived the Nuremberg trials by claiming ignorance of the Holocaust. He authored *Inside the Third Reich* and designed the Reich chancellery.

ANSWER: Albert **Speer**

[10] After serving as Chancellor of Germany for one day after Hitler's death, this minister of propaganda and his wife poisoned their six children before committing suicide.

ANSWER: Joseph **Goebbels**

[10] This man, the Commander-In-Chief of the Luftwaffe, had been a decorated fighter pilot in WWI. He is also known for the formation of the Gestapo.

ANSWER: Herman **Goring**