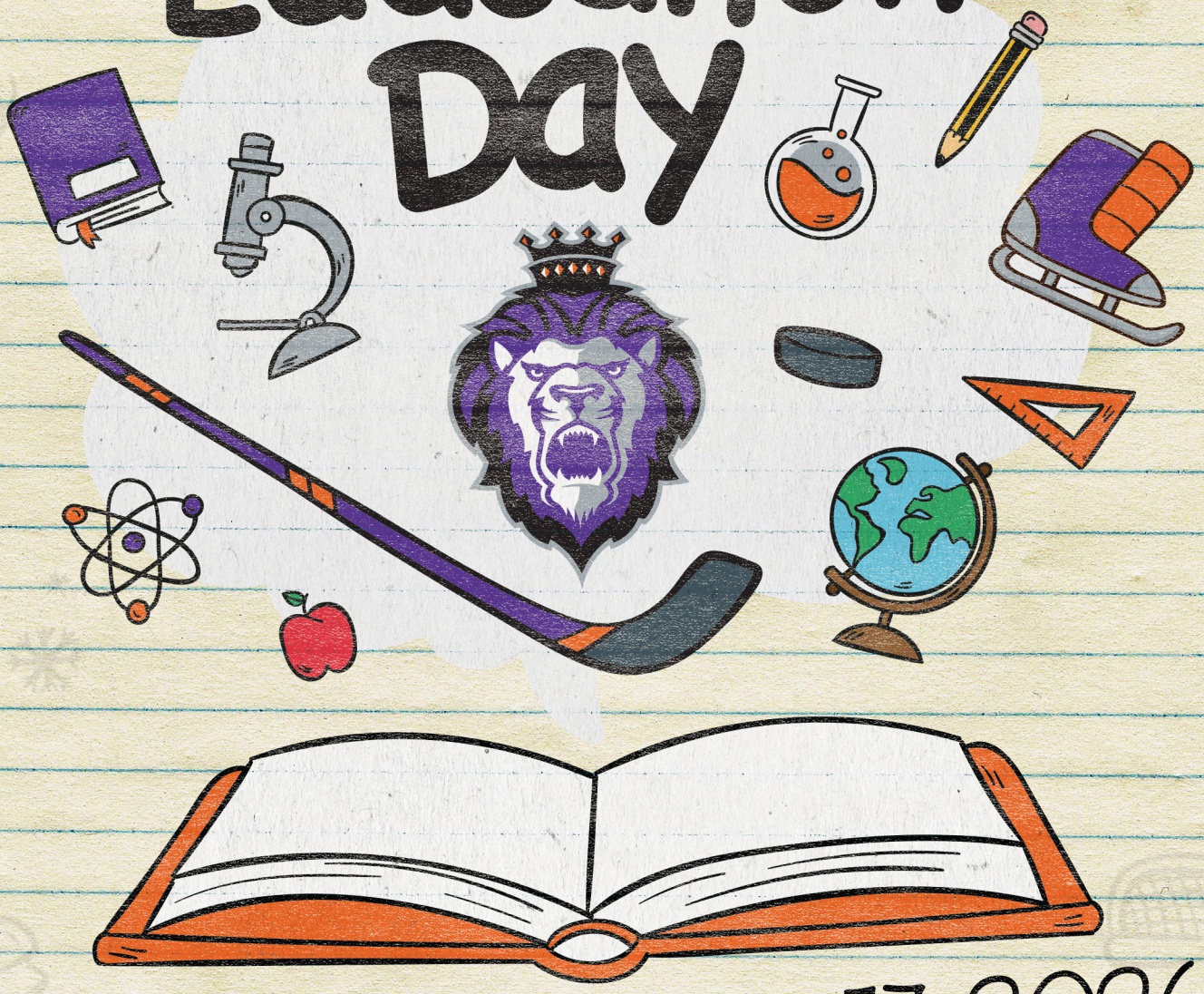
ROYALS HOCKEY

Education Day



Royals

Tues Nov 17, 2026

Tues Feb 9, 2027

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ROYAL NOUNS

Nouns are words that are people, places, or things. Nouns are all around you! Write whether these nouns are people, places, or things. If the word is not a noun cross it out!

STICK _____

PUCK _____

SLAPPY _____

PRESS ROOM _____

ZAMBONI _____

MCMENAMIN _____

ICE _____

PENALTY BOX _____

COACH PETERS _____

HELMET _____

HOT DOG _____

SANTANDER ARENA _____

ROYAL ADJECTIVES

Adjectives are words that describe or modify a noun. Write five different adjectives to describe the Royals player below.



CONNOR McMENAMIN #39

1 _____

2 _____

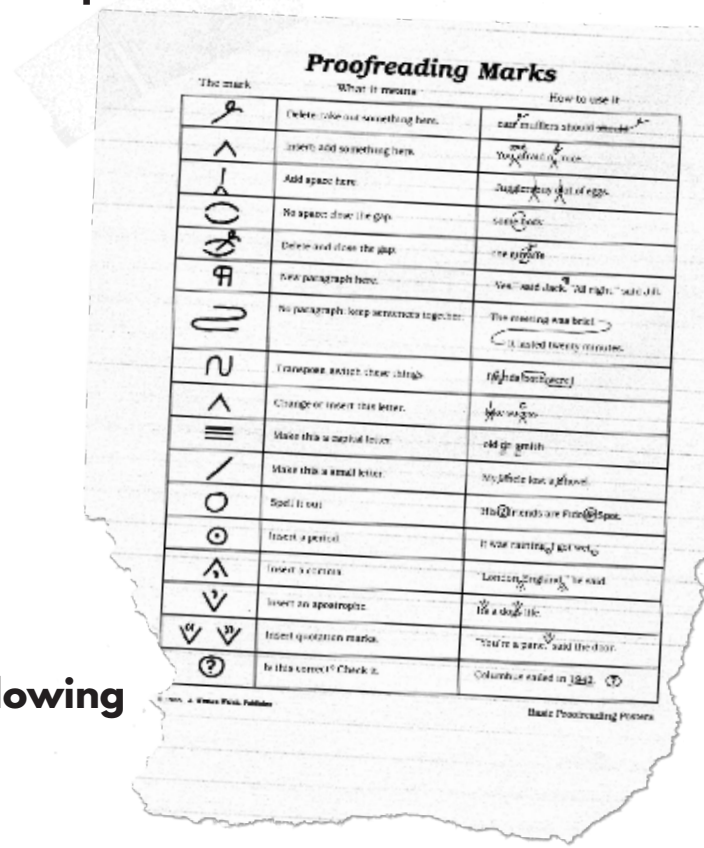
3 _____

4 _____

5 _____

GAME DAY GRAMMAR

Read the following sentences. Correct any mistakes or identify the parts of speech indicated in the questions below.



Circle the NOUNS in the following sentence:

Slappy was wearing a white jersey and shooting pucks into the net.

Underline the VERBS in the following sentence:

The goalie saved the puck from crossing the goal line.

Insert the PROPER PUNCTUATION in the following sentence:

Coach Peters told the team we are only one goal away from winning We can win this game if we work as a team

Correct ANY MISTAKES that you find in spelling, punctuation, or capitalization:

when the reading roials play hokey they are fast, furious, and hard to beet. the teams that they pley feer coming to reading because they no it will be a tuff game to winn



MILES #48 GENDRON

HOCKEY A-Z

A (Assist) A pass that precedes to a goal. A maximum of two assists can be awarded for each goal scored.

B (Backhand) A pass or shot that is taken from the backside of a player's stick blade.

C (Check) When a player uses their body to make contact with an opponent, often to separate that opponent from the puck.

D (Dangling) When a player skillfully handles the puck through the opposition without losing possession.

E (Even strength) Teams have an equal number of players on the ice because no penalties are in place at that time.

F (Face-off) The method used to begin play at the beginning of a period or after a stoppage in play.

G (Goal) When the puck crosses the goal line and enters the net.

H (Hat trick) When a singular player scores three goals in a game.

I (Icing) A minor infraction that occurs when a player shoots the puck from behind the center red line to behind the goal line and is recovered by the opposing team first.

J (Jersey) Uniform worn by hockey players to recognize which team they belong to.

K (Kicking) The act of a player using their foot to move the puck. A goal that comes as a result of kicking the puck will not be counted as a good goal.

L (Line) A combination of three forward players, a center, right wing, and left wing. Most teams designate a specific three-man line for different situations in-game.

M (Minor or major penalty) A two-minute or four minute penalty (minor) / A five-minute penalty (major

N (Neutral Zone) Area of the ice between the blue lines.

O (Offside) An infraction that occurs when a players' skates cross over the opponent's blue line before the puck does.

P (Power play) Occurs when one team has more players on the ice than the other team as a result of penalties assessed to the opposing team.

Q (Quebec) A province in Canada where the NHL's Montreal Canadiens play. The Canadiens were one of the original six teams in the National Hockey League.

R (Referee) The officials in charge of the game who are responsible for maintaining the flow of the game by calling penalties and starting and stopping play when necessary.

S (Slot) The area on the hockey rink located directly in front of the goaltender between the face-off circles on each side.

T (Tripping) A penalty which occurs when a player uses his stick or body part to cause an opposing player to fall or trip.

U (Undefeated) A team who plays a full season without losing any games.

V (Vezina Trophy) The award given out to the best goalie in the NHL regular season.

W (Winger) A forward position of a player whose primary zone of play on the ice is up and down along the boards on either the left or right side of the ice.

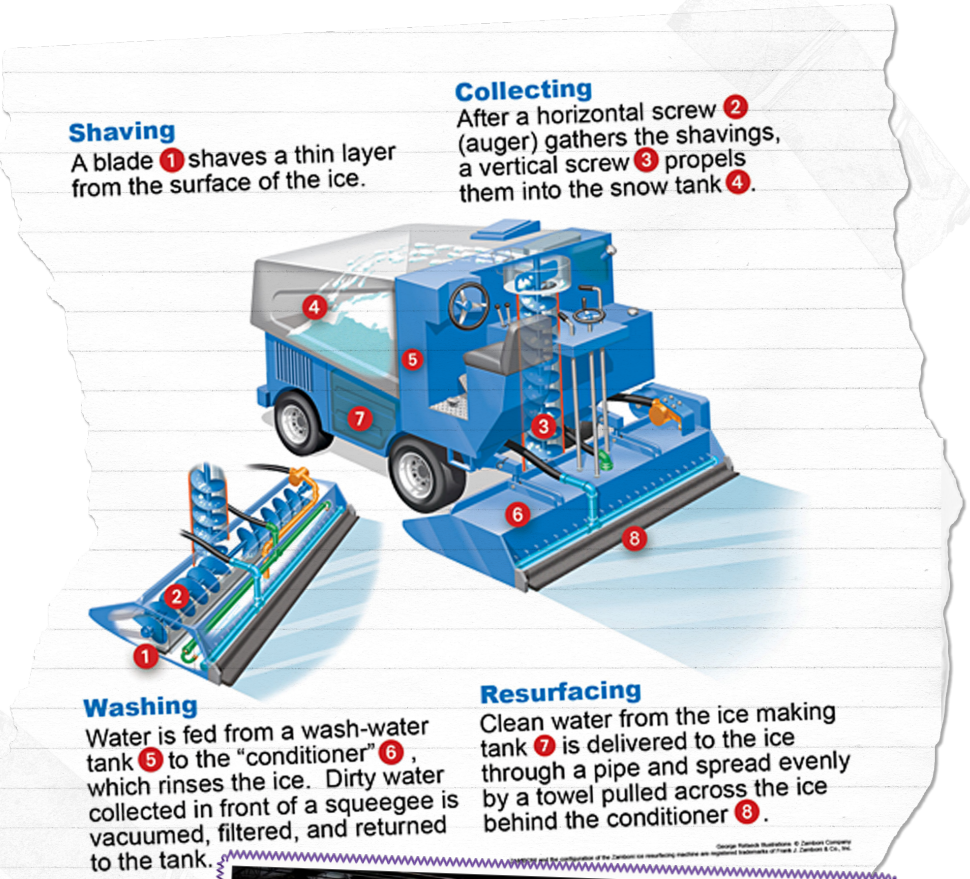
X X-(X-ray) A digital image taken of a player's bones when they may have been injured during game play or practice.

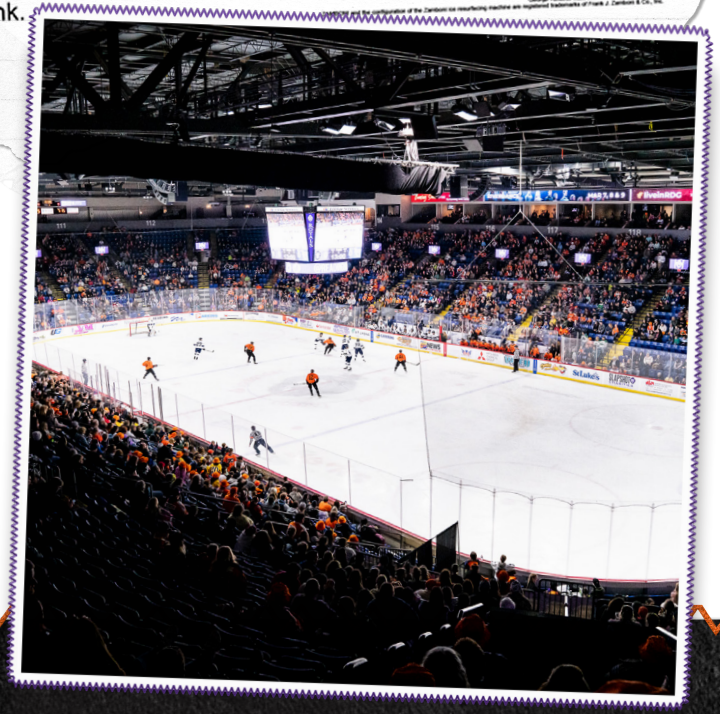
Y (Yard sale) A comical term used to describe when a player's equipment (helmets, gloves, sticks etc.) are laying all over the ice as a result of a big hit or an in-game fight.

Z (Zamboni) A truck-like machine used to clean the ice in between periods. It has a large heater

THE ZAMBONI & ICE

Learn about what it takes to make the ice that goes into a hockey rink!





THE PROCESS:

Before a hockey season begins, the arena uses an advanced refrigeration system that pushes freezing salt water, also called "brinewater", through a system of pipes that run through a large piece of concrete known as the "ice slab". When the "ice slab" gets cold enough, a layer of water is put on top of it and the ice begins to grow. These layers will eventually become the ice rink that you see. When finished, the ice is comprised of about 12,000 to 15,000 gallons of water!

KEEPING THE ICE NICE:

In 1949, Frank J. Zamboni developed a machine that is used to clean snow off of an ice surface. This device, known as the 'Zamboni', produces a clean, smooth sheet of ice for hockey players and ice skates to perform on. The Zamboni works by scraping the ice surface and collecting the snow, which is later discarded. Then, it "cleans" the ice by putting down water which flushes the grooves deep in the ice, loosening any dirt or debris. The excess water and dirt is then collected. Finally, the Zamboni puts down a thin layer of heated water that freezes over, creating a smooth surface.



ZAMBONI FACTS:

A. A Zamboni travels approximately ¾ of a mile for resurfacing.

B. On average, a Zamboni machine "travels" close to 2,000 miles each year while resurfacing.

C. The blade on the Zamboni machine is designed especially for ice-resurfacing and vs sharp enough to slice through thick stacks of newsprint. The blade weighs 57 pounds and is ½ inch thick.

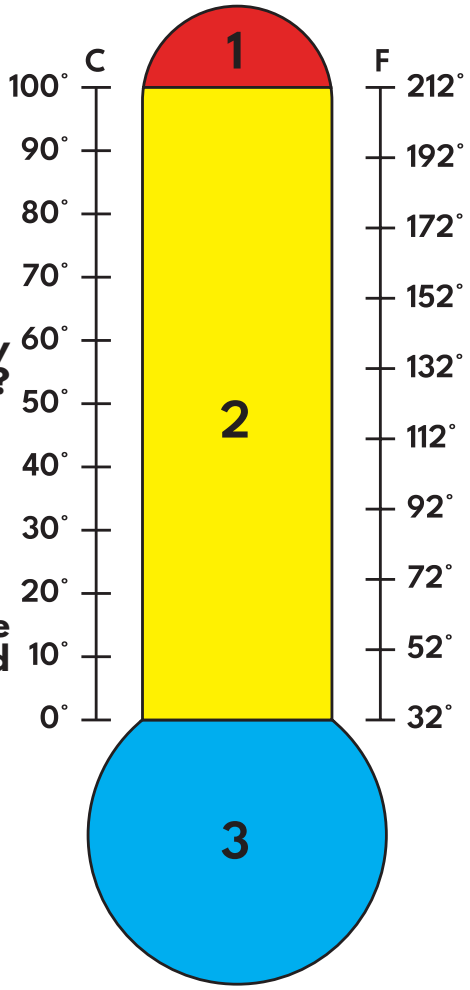
D. When the machine resurfaces the ice, it is capable of removing close to 2,500 pounds of compacted snow, while it can leave about 1,500 gallons of water.

1. Water can exist in all 3 states of matter. What are these three states?

   1 _____

   2 _____

   3 _____



2. If a Zamboni does 4 resurfacings per game, approximately how many miles does the machine travel per game? *(See fact A)*

   Answer: _____

3. The 3 states of matter exist at various temperature ranges. Using the thermometer, what ranges correspond with the 3 states for water?

   Range 1: > 212˚ F/100˚ C _____

   Range 2: > 212˚/100˚ C > 32˚ F/0˚ C _____

   Range 3: > 32˚ F/0˚ C _____

THE PHYSICS OF HOCKEY

FRICTION:

Friction is a force that all objects have which makes them resist motion or movement against one another. Friction is what happens when two things push against each other; like two hands rubbing together or air slowing down a car.

There are two main types of friction: STATIC and KINETIC. Static friction is the friction that exists between a stationary object and the surface on which it's resting. Once the object starts moving, kinetic friction takes over.

Label the images below with what kind of friction they show.





ENERGY:

Players require a lot of energy to skate, shoot the puck, and win a hockey game.

Energy is the capicity for doing work.

There are two types of energy: KINETIC and POTENTIAL.

Kinetic energy is created due to motion. An example of this being used would be a speeding train. Potential energy is stored energy. An example of this being used would be a train that is waiting to leave the station.

Label the photos below with what kind of energy is being used.





FORCE & GRAVITY:

GRAVITY - A force which tries to pull two objects toward each other.

FORCE - An interaction that causes an affected object to move in a certain direction.

Label the photos below as showing force or gravity.





SCOREBOARD



The Period: There are 3 periods in a hockey game (1st, 2nd, 3rd.) Each period lasts 20 minutes.

The Clock: The clock counts down from 20:00 to 0:00.

The Score: Each team is awarded 1 point per goal. The score is a running tally across all periods.

The Shots: Shots are kept track of but do not count towards the final game outcome.

The Penalties: Players in the penalty box will show up on the scoreboard until their penalty is up. Minor penalties are 2 minutes long, while major penalties are 5 minutes long.

---

1. How many total minutes are in a hockey game?

   [Periods] x [Minutes per Period] = _____

2. How much total time has passed in the third period so far?

   [Minutes of Penalty] - [Time on Clock] = _____

3. The Wheeling Nailers have 2 players in the penalty box. What fraction and percentage of the period is served when a player serves one minor penalty [2 minutes]?

   [Minutes in Penalty] - [Minutes in Period] = _____

SCOREBOARD (CONT.)



The Period: There are 3 periods in a hockey game (1st, 2nd, 3rd.) Each period lasts 20 minutes.

The Clock: The clock counts down from 20:00 to 0:00.

The Score: Each team is awarded 1 point per goal. The score is a running tally across all periods.

The Shots: Shots are kept track of but do not count towards the final game outcome.

The Penalties: Players in the penalty box will show up on the scoreboard until their penalty is up. Minor penalties are 2 minutes long, while major penalties are 5 minutes long.

---

4. What time is the Nailer's player, who has a major penalty, allowed back in the game if he serves the full penalty?

   Penalty Time = _____

5. The Reading Royals scored their first 2 goals in the 1st period and their second 2 goals in the second period. What is their average goal to period ratio?

   Average goal to period ratio = _____

6. The Wheeling Nailers have 32 shots on goal and the Reading Royals have 24. What are both teams shot to goal ratio?

   Reading Royals Shots = _____ Wheeling Nailers Shots = _____

   Reading Royals Goals = _____ Wheeling Nailers Goals = _____

THE RINK

1. What is the perimeter of the rink?

   [Length x 2] + [Width x 2] = _____

2. What is the length of the defensive zone?

   [the purple line above] = _____

3. What is the length of the dotted line C?

   C = _____

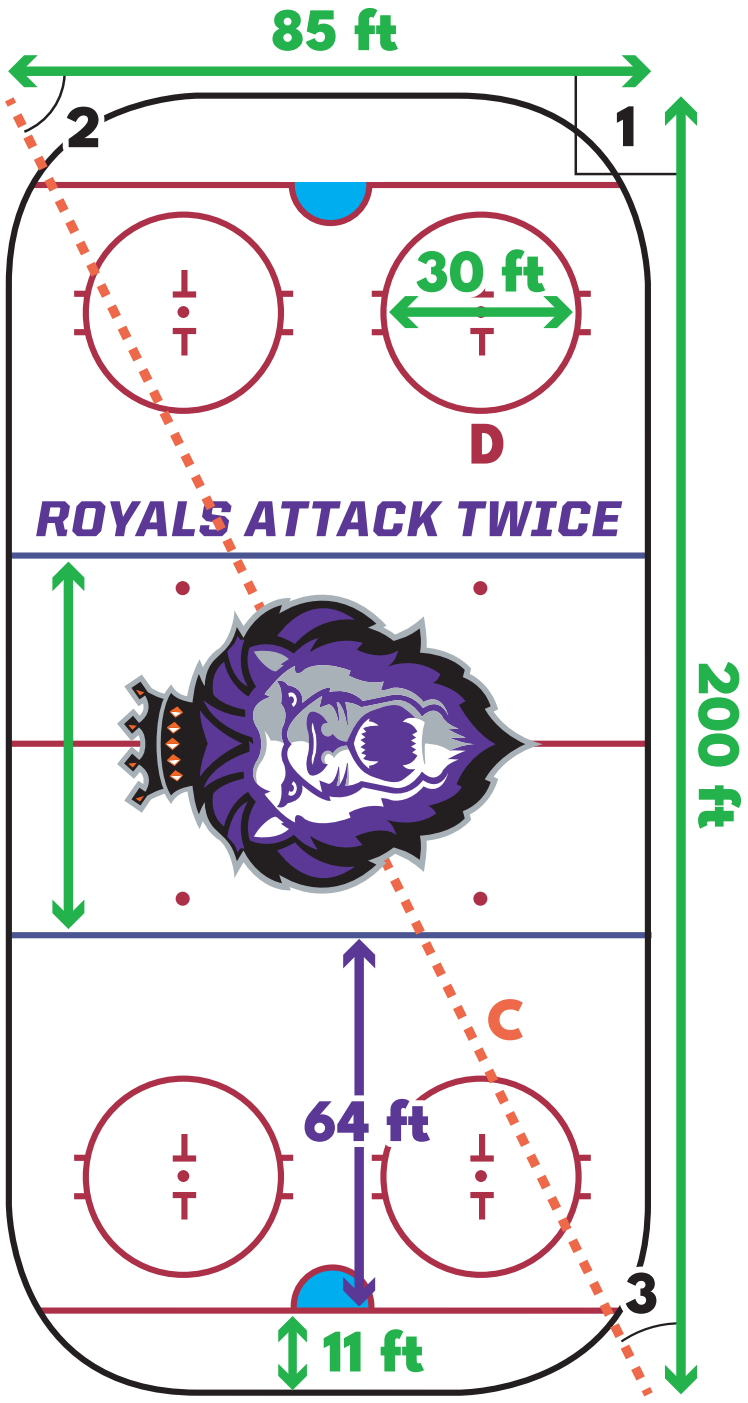
4. What is the radius of the faceoff circle?

   D = _____

5. If the triangle created from lines A, B, and C is a right triangle and angle 1 is 90˚,

   what degrees is Angle 2? _____

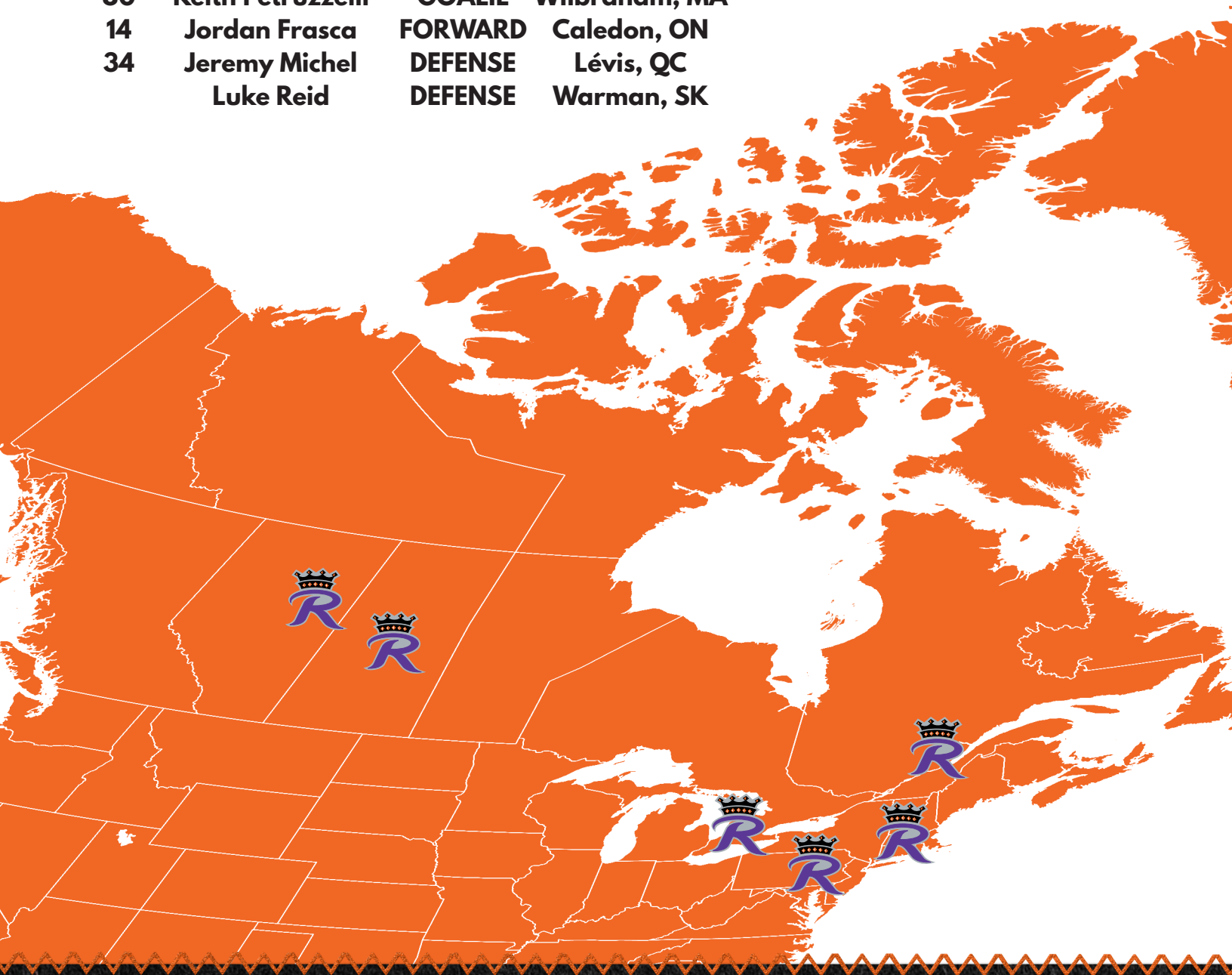
   what degrees is Angle 3? _____



MAPPING THE ROYALS

Study the list of Royals players below, then match each player's number with the "R" on the map that corresponds to that player's hometown.

#	PLAYER	POSITION	HOMETOWN
91	Austin Saint	FORWARD	Gatineau, QC
39	Connor McMenamin	FORWARD	Collegeville, PA
80	Keith Petruzzelli	GOALIE	Wilbraham, MA
14	Jordan Frasca	FORWARD	Caledon, ON
34	Jeremy Michel	DEFENSE	Lévis, QC
	Luke Reid	DEFENSE	Warman, SK



ROYALS HISTORY

2001 The Royals play their ist game on October 12th. They record their first win in team history on October 20th.

2002 On October 11th Brian McCullough scores three goals in a game against the Wheeling Nailers to record the first hat trick in team history.

2006 The largest crowd in Royal's history (7,315) gather in Reading to watch a 4-2 win over the Trenton Titans.

2008 Future NHL Stanley Cup Champion goaltender Jonathon Quick plays 15 games with the Royals before going on to play for the LA Kings the following year.

2013 The Royals win the Kelly Cup Championship on May 25th. There was a big championship parade on Penn Street in the week following the big win.

2017 Kirk MacDonald is named Royal's head coach following the 2016-2017 season.

2019 The Royal's finish their season with a 6 game winning streak and Coach MacDonald signs a contract extension for the next season.

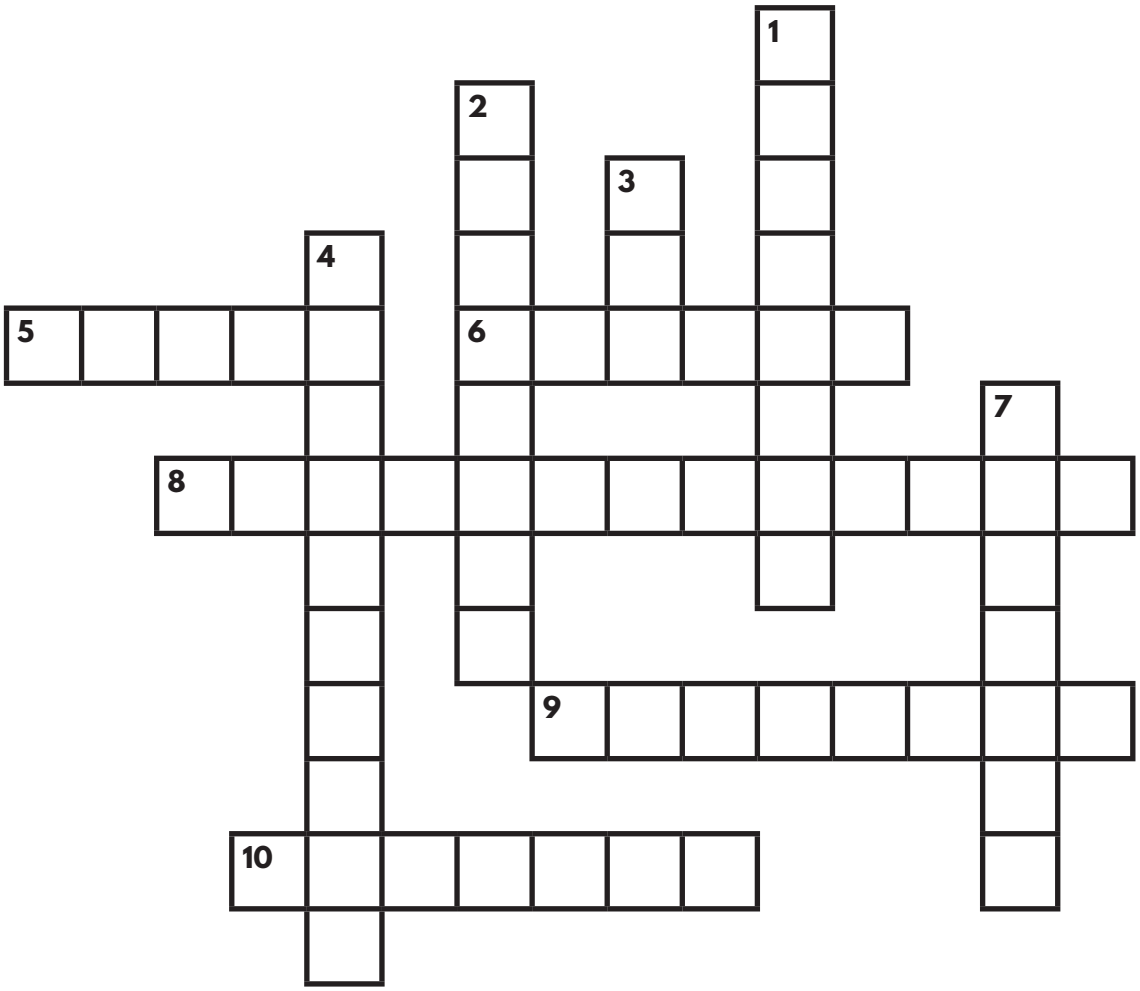
2021 The Reading Royals host their 20th Anniversary season. The home opener was on October 23rd versus the Norfolk Admirals with a final score of 6-4, giving the Royals their first home win of the year.

WORD PUZZLES

CREASE
DEFENSE
HOCKEY
JERSEY
READING
ROYALS
SLAPSHOT
POWER PLAY
ICE RINK
PENALTY
PUCK
ZAMBONI

A O Q U J E R S E Y E S R E Z
O W T O H R H N E D R U Q T K
Z R B Y J E U V B A O Q V O S
A A Z P A A S T B K Y S Z V U
B Z V E T D H M N E A L A C C
T N V N Z I D I A Y L A M K R
A F D A H N S Q A S S P B P E
A D H L I G G L U A F S O H A
M L K T X P P M G J V H N B S
K T M Y P R U F B I Z O I P E
S A K U E F K C Q D W T U G M
H D C W C H O C K E Y U J D G
Q I O K E S N E F E D Q W L U
L P U I R H D X R T R Y A L P
C M K D Z N E C I C E R I N K

Complete the Crossword puzzle using the clues below!
Use the vocabulary on pages 8 and 9 for help!



ACROSS

5. Number of periods in a game
6. The light blue area directly in front of the goaltender
8. Hockey team in Reading
9. Hitting the puck with the blade of the stick after taking a full backswing
10. Type of penalty that uses the stick as a hook to slow opponent

DOWN

1. Name of Reading Royals mascot
2. Use of the body on an opponent
3. What the game is played on
4. The area opposite of the team benches where players serve time for a penalty
7. A post-season competition

MEET OUR STAFF



AMANDA ECKERT | CORPORATE PARTNERSHIPS AND SPECIAL EVENTS MANAGER

Amanda attended Reading Area Community College, where she earned her associate degree in General Studies. She also attended at East Stroudsburg University, where she was a member of the Warriors swim team and earned her bachelor's degree in Hotel, Restaurant, and Tourism Management. Amanda later received her master's degree in marketing from Southern New Hampshire University.

Amanda loves bringing the community together through hockey and creating unforgettable experiences for fans of all ages!



CHRIS HAZEL | DIRECTOR OF TICKETING

Chris attended Widener University's School of Business with a focus on sports management and interned with the Reading Royals during both his junior and senior years. In May 2016, he joined the Royals full-time in ticket sales before graduation and has since worked his way up from Account Executive to Group Sales Manager to Director of Group Sales and now as Director of Ticketing.

For Chris, making a sale is always exciting, but the most rewarding part is seeing those same fans and groups come out to a game and have an incredible time. It's a satisfaction unique to sports unlike other industries where no one gets that excited about a new office printer, here every sale has the potential to create a memory.



JON HABERMANN | GROUP SALES EXECUTIVE

Jon graduated from York College with degrees in Sport Management and Mass Communications. He began his career as an intern with the Royals in the summer of 2023 and was brought on as a full-time member of the staff that October. Jon is currently in his 3rd season with the Royals while also pursuing a master's in business administration.

Jon has been around hockey his entire life. He began playing at 7 years old all the way through his 5 years at York College. From coming to Royals games as child to working for the front office has been an incredibly rewarding experience, and Jon hopes to provide amazing memories for fans just like he had!



JAK KERLEY | CREATIVE DIRECTOR

Jak has worked in minor league sports since 2013, spending a decade in minor league baseball before transitioning to hockey in 2021. With the Royals, he oversees all aspects of the team's creative identity, including photography, graphic design, and video production. He also manages game presentation, coordinating everything that happens in the seating bowl during Royals home games. Jak earned his degree in Film and Television from the Savannah College of Art and Design.



TAMMY DAHMS | VICE PRESIDENT OF CORPORATE PARTNERSHIPS

Tammy works with the Reading Royals to build partnerships and plan theme nights and fun promotions to help our partners market their business. Her job is to connect local businesses and non-profits with the team to make a positive impact – not just during our games, but throughout our community.

MEET OUR STAFF



NOAH STOCK | ACCOUNT EXECUTIVE - TICKET SALES

Noah graduated from Florida International University in the summer of 2024 with a degree in Sports Management after completing his internship with the Royals. Shortly thereafter, he joined the team full-time as an Account Executive.

A lifelong hockey player, Noah always knew he wanted to build a career in professional sports—especially in hockey. In addition to his work with the Royals, he also serves as a part-time youth goalie coach with the Reading Jr. Royals. His passion for the game fuels his dedication to creating an exciting and memorable experience for fans at the arena.



J.R. YENSER | GROUP SALES EXECUTIVE

J.R. attended Lebanon Valley College, graduating in 2021 with a degree in Business Administration and a minor in Management with a focus on leadership ethics. Following graduation, he worked as the Family Camp Operations Manager at Camp Swatara for four years. During this time, he also earned his MBA in Organizational Leadership, completing the program in 2024.

In May 2025, J.R. joined the Reading Royals front office as a Group Sales Executive. A lifelong sports enthusiast, he is passionate about creating opportunities for others to enjoy the same experiences that inspired him growing up.

ROYALS RAFFLE

Once you have completed this packet, fill out the information below. When you arrive at the Royals game, drop this page off at the table behind section 112 to be entered to win a Royals signed puck!

Winner will be announced during the game!

NAME: _____

SCHOOL: _____

TEACHER: _____

GRADE: _____

