

## CHAPTER TWO

Finn sat down in his seat in engineering, looked up at the board and read, Q. How many second year engineering students does it take to replace a lightbulb?

Mr. Lafferty pointed at the question. His voice boomed too loud in the quiet room. "Again, extra credit for the best answer." Photos lit up the screen as Mr. Lafferty named them. "The Golden Gate Bridge, The Brooklyn Bridge, the Verrazano, a rope bridge, a floating bridge -- each has its purpose and particular challenges. Engineers take into account usage, weather, landscape, available materials and budget." He shut off the overhead. "Think about the different geometric shapes used in the world's famous bridges."

Mr. Lafferty placed a few pieces of newspaper on each student's desk. "I know this may be a new technology for you," he said, walking around. "But back in the old days, this is how we got our news."

"Wasteful," said John.

"Environmentally reprehensible," agreed Mary.

We get the Sunday paper, Finn thought. Mom rides her bike up to the bagel shop and brings one home with breakfast.

Mr. Lafferty continued. "Today, you'll use this paper to build a bridge that will support one hundred pennies. Work in teams of two. Karin, pass out these bottles of glue, please. Pairs of scissors are on the back counter, if you need them, but extra credit to those who don't. The bag of pennies is back there, too, when you're ready to test. Take a look at the overhead." He sat at his desk and busied himself at the computer.

Finn turned to Parminder to find her sketching in her notebook. "So, I guess we're working together, again."

She smiled for a millisecond and continued to draw.

He cleared his throat. "Any ideas?"

She frowned and kept her pencil moving.

Words appeared on the overhead screen: compression, tension, torsion, bending and shearing. Mr. Lafferty said, "Your homework tonight – define and illustrate the five forces affecting bridge design."

Maybe fan-fold the paper? Finn thought. He tried this, folding the paper neatly back and forth. He dropped the sheet back on the desk, where it expanded until it resembled corrugated aluminum.

"Get started. Use your textbooks as the end support beams. You have thirty minutes."

Parminder held up her notebook for Finn. "Do you think this might work?"

"Yes, look, my folded paper is the inside."

"The trusses," she said.

"And with a top sheet and a bottom." Finn laid a sheet of newspaper on top of his zigzag folded one.

Parminder pressed the paper down with her finger and squashed the thing flat.

"Why did you do that?" Finn demanded.

"Because the pennies would have done that. This is the beginning, but not the solution."

Finn felt grumpy. He thought he was onto something. "But no one said the pennies have to be inside the bag. They could be, you know, distributed across it."

The little frown line appeared between Parminder's eyes. "As I said, your basic design is okay, but we need to reinforce it. We have more paper and also glue." They got to work.

Finn was surprised when the teacher said, "Time's up."

Finn had used half a bottle of glue, as much on himself and Parminder's fingers as on the bridge.

The teacher bellowed, "Today's question was 'How many second year engineering students does it take to replace a lightbulb?' Madison gave the best answer. One, but the rest of the class copies the report. Good one.

"Take a sheet of notebook paper and put your names on it. Then place your bridge on top of it and carry it to the back counter. We'll be testing your structures tomorrow. Also, don't forget, Engineering Club meets after school tomorrow."

The bell rang, resulting in the usual scooping up of backpacks and charge to the next class. The school, Finn had heard, was built to accommodate twelve hundred kids but currently housed three thousand. The press in the hallways was intense. Finn could see over some of the heads since he was taller than most of the freshman class. He had nevertheless been 'hip-checked,' bashed into

a convenient wall by passing seniors, on multiple occasions. Finn looked at Parminder, as tall as his shoulder, with sympathy. How did she navigate the hallways? Girls had softer parts than guys, too.

He caught up with her as she dove into the torrential river of noisy teenagers which was the hallway. He raised his voice over the din. "That was fun today."

She shot a look at him and a girl jostled past her, knocking the sports bag off her shoulder. "I wonder if it will pass the test."

Finn shrugged and helped her get the strap back on her shoulder. He realized the sport bag had the Umbra brand logo on it. "You have a soccer bag." he yelled.

"Why shouldn't I?" She shouted back.

"Wait, you're not going to tryouts, today, are you?"

"I was thinking about it."

"Have you played travel? I heard you won't get on the team if you haven't."

"I'm not worried. See ya." She turned down a hallway to the right.

Finn continued straight on to biology and sighed at the thought of the quiz waiting for him there.

#

Last year, Finn and Axel stood shoulder to shoulder, which allowed Finn to drive his kart without adjustment. Now Finn loomed half a head taller than his friend, so jacking his ride was no longer possible. Finn was glad of his height, he finally felt comfortable with it in high school

where plenty of kids, even girls, were taller than himself. Axel was also happy with his height, because a lighter driver was a faster one, and every conceivable advantage was welcome. Next year might be different, both his parents and sister were tall. Next year he might grow into his height.

When Finn arrived at Axel's house, his mother said to him, "Go on in. He was working on virtual school but he's surely ready for a break."

Finn walked into Axel's room and found him in his desk chair, not studying but asleep.

"Dang!" He yelled into Axel's ear.

Axel awoke with a start. "Time is it? I have to hand in this assignment by five o'clock."

"Five twenty. You snoozed, you lose-d."

"Son of a--" Axel yelled at the computer screen. "Scheisse!"

"What happens now? Can't you still turn it in?"

"I go down a letter grade."

"Harsh."

"Great. Computer's frozen." Axel turned it off. "Must be time for a break. F1?" Axel wanted to play the Formula One racing game.

Finn wanted soccer. "FIFA."

"Rock-paper-scissors."

They held out their fists and shook them as they chanted, "Rock, paper, scissors, shoot!"

Finn threw rock but Axel showed paper. He tapped Finn's fist with his open palm. "Do not dare to challenge the master."

Axel handed Finn a steering wheel controller and spooled up the game. In the opening video, the music of champions played. A familiar high speed whine passed from one speaker to the

other as if a car had winged around a bend in front of him. Clouds scudded over the racetrack, the Monaco Grand Prix street course in Monte Carlo. In high definition slow motion, Finn could see the rough surface of the Red Bull Renault tires spinning toward him. The hand of the Ferrari driver adjusted his line slightly and two wheels came off the ground around a turn. The front axle flexed as the wheels landed and the car drifted until the pilot corrected his momentum to match the next bend of the S-turn. When the Pirelli tires squealed, smoke rose from the rubber on pavement.

Breaking the mood, Axel's mom came into the room. "Did you finish that assignment?"

Axel grimaced. "Not quite."

"I thought it was due at five o'clock."

"Yeah."

Finn wanted to sink into the couch and disappear. He knew Axel struggled to keep up with his assignments. He had to work many hours on his own to fit in all his work in the part of the week that he was in town. The brutal schedule allowed him to leave for training and races every weekend, often four days at a time. Finn realized he was gone more than he was home during season.

His mom stared at him a long moment and retreated. Finn let out the breath he hadn't realized he'd been holding.

"I'll be Ferrari this time," Axel said, as if nothing had happened.

"Don't try."

"You wish you could handle it."

"Guess I'll have to show you how."

"Shut up and drive."

Axel grinned and Finn grinned back.

#

The screen read, "Your score = 65%" Please see the attendant to schedule another test."

Finn's heart sunk into to his stomach. He knew Axel hadn't studied for the test and he knew how to drive.

The DMV Road Signs test had been easy.

1. This pentagon-shaped sign means you are near a school and need to watch for children.

True or False? Under the question a yellow sign pictured two kids. That was True.

Number eleven was another no-brainer.

2. This sign indicates Right Curve. True or False? A diamond shaped sign showed a right angle arrow pointing to the right.

The questions continued in a similar vein and he had scored 100%.

But the Learner Permit Road Rules Test was less about driving and more about drugs, alcohol and other reasons you could lose your license.

For example, number four surprised him

1. A license can be suspended if:

A. You do not stop for a school bus

B. You do have insurance on your vehicle

C. You fail to pay child support

D. A and C only

Finn wondered how many fifteen-year-olds had to pay child support. He chose A but D

was the correct answer.

Finn wasn't planning to lose his license, he was planning to drive! Ask about that!

He knew number two because he had learned about force and speed in engineering.

2. If you double the speed of a car, you increase its force of impact by \_\_\_ times:

A. Zero

B. One

C. Four

D. Twenty

The correct answer was C, the force increased by four times. He was sure of it.

3. In Florida, who has the right-of-way:

A. The driver on the right

B. The driver on the left

C. No one

D. Everyone

This had to be a trick question. He knew D. Everyone was wrong, but A or C? Later, he would find out the answer was C. No one because Florida law talked about yielding the right-of-way. Bogus.

Finn walked from the counter with the computer to his dad sitting in the waiting area.

Dad's face lit up. "So, how'd it go?"

Finn lowered his eyes and shook his head.

"No go?"

Finn felt like crying. He didn't speak.

Dad sighed and put an arm around him. "That's okay, son. I didn't pass the first time either."

Finn looked up. "You didn't? You never told me that."

"I guess I should have mentioned it. Maybe you would've studied harder."

Finn looked down again and nodded.

"Should we get another appointment?" Dad asked.

"Nah, let's just go."

#

"C'mon, let's bounce," said Axel, pointing to the outdoor bounce house. Axel's mom had taken them to Ikea, her favorite store because it was a little island of Sweden right here in South Florida. He and Finn sat in the back-back of the Volvo station wagon on the long ride, while Axel's little sister and friends occupied the regular seats further forward. As the boys climbed out the hatch in the parking lot, their legs felt stiff.

The bounce house stood empty, unsurprising since it was ninety degrees in the shade and oppressively humid. Finn kicked off his shoes and climbed in after Axel. Immediately, Axel body slammed him.

"Okay," said his mom. "Try not to kill each other and you have to get out if any little kids want to play."

"Sure, Mom." Axel launched himself at Finn by running at the opposite wall and ricocheting off of it onto him.

Axel's mother, sister and her friends disappeared into the treasure trove of candles and

Scandinavian designed furniture.

Many cannonballs, half-gainers, somersaults and face-plants later, Axel said, "Let's eat."

Finn, dripping in sweat, more thirsty than hungry, agreed. Once inside, passing by towels and dishes in cheerful colors and sofas and kitchens of clean lines, they headed to the restaurant, which was cafeteria style, like at school. They got in line to order. "Do they take American dollars here?" Finn asked.

"Ha, ha. Very funny. Why, do you happen to have Kronor in your pocket?"

Finn figured Kronor were Swedish money. "Not today. So what do you usually eat here?"

"Definitely the meatballs."

"Like I had at your house? Those are awesome."

"Extra gravy and bread."

"Sounds good."

"And lignonberry sauce."

"Pass on that."

"You're missing out."

"I'll get over it. What's for dessert?"

"Chocolate."

"Remember that pancake cake your mom made for your birthday?"

"That's my favorite. With strawberries."

After paying, they got their food and found a table. "Freaking awesome," Finn said, taking a bite. "So when do you leave for Abu Dhabi?"

"November eighteenth. I have a week to get used to the time change and the climate. It's

really hot there."

"It's really hot here."

Axel swallowed his food. "No, like desert hot. Like oven hot. Like over one hundred degrees some days."

"Oh. Tough for a Swede, I guess. You guess are more into snow, right?"

"It's cool. Lots of Swedes are Formula 1 winners."

"Kimi Raikkonen?"

"No, man, he's Finnish." Axel's mouth was full again and it was tough to understand him.

"Finished?" Finn asked.

"Finnish." Axel sputtered some breadcrumbs across the table. "From Finland."

"Oh." Finn felt bad he didn't know any Swedes.

Axel took a drink of his apple juice. "Gunnar Nilsson, Joakim Bonnier, and Ronnie Peterson."

"Are any of those, um, recent?"

"Nah, we're overdue. That's where I come in."

Finn grinned. Axel was so confident, but not in an in-your-face kind of way. He just knew what he wanted to do and he was sure he would get there.

"How did you start racing karts, anyway?"

"I tried everything else -- tennis, soccer, football, hockey. Then I got invited to a birthday party at the raceway. Turns out, karting was the only thing I was good at."

Finn felt like he was a little good at a lot of things but very at nothing. What would he do with his life?

#

Emerging from Locals surf shop, Finn scanned the parking lot for Mom's car. He approached the hunter green 1998 Honda CRV. Its milky headlights stared unseeing into the distance like an old person with advanced cataracts. Scratched racing stripes looked out of place, like gray hair intruding when his mother hadn't been to the hairdresser in too long. Around the windows, the cracked black rubber allowed the aluminum to shine through. Like a Florida cracker who started life before sunscreen, the Honda had spent too much time unprotected outdoors. Door dings pockmarked its paint job like acne.

Thankfully, this wasn't his mother's Honda. Her car, garaged and lovingly maintained for fourteen years by his dad, the car guy, waited a few spaces away. As a miniature sport utility vehicle, the Honda drank fuel sparingly, a bonus for his limited budget, and offered plenty of room for surfboards and friends. He planned to add the new Locals stickers to the back. A few door dings and a minor dent in the front driver's side panel reassured Finn that he would not be the first to damage the car. Best of all, the car was free.

Finn turned the ignition and backed cautiously out of the parking space. From the left, careening around the corner on two wheels, a car flashed past. Finn sucked in his breath and slammed on the brakes. The driver, a blue-haired speed demon in a Ford Pinto, waved in greeting as she accelerated out of the lot.

"Young or old, some people are just dangerous behind the wheel." Mom laughed nervously. "Ready?"

Finn swallowed and gently pushed on the gas pedal. He stopped at the Stop sign, looked left, right, left and turned left.

Mom said, "Use your blinker."

"Oh yeah." So much to think about. He turned on the left turn signal. The main street out of the parking lot curved so that it was difficult to see very far in either direction. And he knew from riding with his dad that people tended to speed along this stretch. The winding, tree-lined road begged cars to cruise.

He eased the nose of the car into the intersection and checked to the right once more. A car approached, closing the distance rapidly, so Finn slammed his foot on the accelerator, pulling into the lane.

The approaching car braked sharply and loomed large in Finn's rear view mirror before backing off. Finn used a hand to rub his face and quickly replaced it on the wheel in the classic ten o'clock position, while his right hand was locked at two o'clock.

"Okay, watch your speed," said Mom.

Finn risked a glance at the speedometer and another at the mirror. The needle hovered at forty although the speed limit sign they had just passed cautioned thirty miles per hour. He hadn't seen it this time but he knew it was there.

"Yeah, I know, Mom, but the guy behind us is right on my bumper."

"He wouldn't be if you hadn't pulled out in front of him."

Finn looked at his mother in the passenger's seat. "He was speeding. He came up way too fast."

"That's a tough intersection for sure. Stop sign."

Finn punched the brake. "Okay, I need you to stop talking for a while."

"If you keep your eyes on the road, I won't have to."

Finn fumed but kept silent. The car behind him honked, so he proceeded through the intersection.

"You're doing fine, Finn. Really."

"I suck."

Mom sighed. "It's all about practice."

Finn thought it would be tough to practice if all they did was fight, but passing his driver's test would be worth it. And he would pass on the first try, not like with the permit.

"You know we want you to take driving safely seriously."

Finn nodded and hoped she would spare him another lecture. No such luck.

"A nationwide study shows that tougher licensing laws for teenage drivers have reduced deadly accidents among 16-year-olds, but with an unintended consequence: increasing the fatal crash rate among 18-year-olds. Let's turn left up here."

"That's not good." Finn was trying to see if he could safely turn left out of the development onto the main road. A break in the traffic allowed him to proceed.

"Yeah, over all, the tougher laws have been credited with a thirty percent drop in highway fatalities among teenagers. But in California, when they looked at the 18- and 19-year-olds, it was shocking. Seventy-five percent of the fatal crashes they thought they were preventing actually just occurred two years later."

"My health teacher said that teenagers learning with their parents are not getting as good experience when they have "co-drivers." Like when you're in the car, I'm not getting the feeling of driving alone."

"That's a good point."

"But you probably think I'm reckless alone."

"Not really. I read that the reason the rate of crashes among teenagers is so high -- like ten times as many crashes as middle-aged drivers -- is not that they are reckless, but that they make simple mistakes. Failing to scan the road, misjudging, and becoming distracted. They recommended narrative driving, having adult drivers point out to teens examples of unsafe driving and explain to them how they are dealing with distractions on the road."

Finn knew this meant his mom was not finished talking. "I bet they meant when you're driving, not when I'm driving."

"And lack of sleep! A study in The Journal of Clinical Sleep Medicine this year found that teenagers who started school earlier in the morning had higher crash rates."

"I knew getting up at six a.m. was a bad thing." Finn yawned.

"I'll be quiet, now," Mom said.

#

A teammate popped the soccer ball up in the air toward Finn, who positioned himself in front of the goal to receive it. Boom! He smacked it with his head into the goal, zooming it past Burrito who made a dive a half-second too late to stop it.

"Nice one, Finn!" called the teammate.

Finn grinned. "Thanks!" They traded high-fives.

The coach blew the whistle to call them in. "Good practice, everyone. Remember, home game tomorrow is at 5:15, be here at 4:15 ready to go. Huddle up!"

All the players put their hands into the center of the circle and the team captain called out, "One, two, three!" All the players chimed in, "Go, Warriors!"

Everyone gathered their gear and moved in the direction of the parking lot. Finn noticed Parminder and sitting on the bleachers. Feeling good from the shooting a goal, he walked over to her. "Hey, what's up?"

She smiled. "Just waiting for my ride. Mom's running late. Nice header, by the way. Hope nothing shook loose."

Finn grinned. "Nothing important, anyway. We're going over to JJ's. Can your mom pick you up from there?" JJ's was the local hangout, one block up from the school.

"My mother doesn't approve of fast food hamburgers. We're vegetarians."

"What about french fries?"

"I could eat some fries."

"And smoothies? They have the best chocolate smoothies."

"That sounds good. I'll text her."

Burrito let out an ear-piercing whistle. The group had packed up and ambled in the direction of JJ's. Finn called to him. "Meet you over there."

Parminder's phone peeped. "She says I can go." She picked up her book bag and hopped down from the bleachers.

Finn felt shy suddenly. He wondered what to say. In class he could talk about schoolwork, although he thought he talked about other things. But what?

Parminder said, "Have you started the research project for Engineering yet?"

"No. Do you have a topic already?"

"No."

They walked along in silence for a while. A school bus cruised past them.

"Where did you go to middle school?" Finn asked.

"In India."

"Oh, you just moved here."

"My father works for Kingfisher beer. They are expanding in this country."

"And you're from India, right? Is your name common there?"

"No more or less than common than Finn, I guess. Did you see the movie Bend it Like Beckham?"

"Is that that soccer movie?"

Parminder nodded. "I'm named after the actress who played the lead part."

"So like, you only pretend to play soccer."

She ignored him. "Were you named after anyone?"

"I think my mom's best friend's son. Something like that. I was thinking about going to that Engineering Club thing." He glanced over wondering what her reaction would be.

Parminder nodded, "Could be good."

They had reached JJ's. Finn saw everyone look up when they walked in. They got in line to order.

Parminder said, "Are the fries any good?"

"They're amazing."

"They better be."

"Can I take your order?" The teen behind the counter asked in a flat voice.

"Yeah two french fries, two cokes." Finn pulled out his wallet. "You like Coke, right?"

Parminder nodded. "No ice."

Finn paid for the food. "People in Germany don't use ice, either. Weird."

"Actually, the US is the only country obsessed with ice."

"I'm not obsessed."

"You weren't born here."

"How do you know that?"

Parminder's eyes jumped away and back. "You're always wearing jerseys from European teams. A lucky guess. Or Coach said something about it. Where were you born?"

"Germany." Finn wished the conversation could stop, turn anything before the next question came.

"What made you move here?"

Finn hesitated. Talk about a downer. "My dad died."

"Oh, Finn, I'm so sorry."

Finn got his reprieve in the form of Burrito, who walked up to them at that moment. "Hey, what's up?" Finn asked him.

Burrito said, "We're sitting back there in the corner." He pointed and headed back.

The JJ's person put a tray on the counter. Finn picked it up and headed to the corner.

"How much was all that?" asked Parminder.

"I got it."

"What? No way!"

"Okay, chill. A couple bucks, no big deal."

She followed Burrito back to the booth and Finn walked slowly behind, feeling stupid.

Apparently, this wasn't a date. He knew it wasn't and he really didn't think he wanted it to be. Why

had he asked her in the first place?

"Mindy!" The kids at the table called out when she arrived. The mix of boys and girls certainly seemed to know her and like her. Finn relaxed a little. He was about to set down the tray when he tripped over someone's backpack and the tray went flying onto the table. Drinks spilled everywhere and people on two sides of the table leapt to their feet, wet from spilled soda.

Finn said, "Whoops." What more was there, really?

He got some napkins and soon most of the mess was cleaned up. "Sorry," he said. He went back up to the counter for refills. The girl refused saying, "Too many people are doing that. I can't allow it."

Frustrated and embarrassed, he paid for new drinks. When he returned to the table, Parminder was deep in conversation with Burrito. That was bad. Burrito could charm the skin off a snake.

He sat down next to her and handed her the fresh drink. She looked up at him briefly and returned to her conversation.

"Yes, I was born in India."

Why hadn't he asked her that?

"What's it like there?" asked Burrito.

"Crowded."

Everyone laughed.

"Where are you from, Burrito?"

"Miami."

What's it like there?

"Crowded."

More laughter. Finn felt on the edge of things. He ate his fries, but he didn't really taste them. The coke was watery and a little flat.

He watched Parminder, joking with Burrrito. Why was it so easy for Burrrito and so hard for him? He was the one who'd asked her here and he wasn't even getting to talk to her. He felt a little angry with Burrrito now. Was he trying to make a move on Parminder?

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