8th

Welcome to Middle School at St. Joseph School!

Dear Students and Guardians

Welcome back to middle school all of our seventh and eighth grade students. We welcome the sixth grade students to our team. To simplify things the middle school teachers are requiring the same materials for 6th, 7th and 8th grade students. The list includes everything you need for your homeroom as well as all other classes. Here is what you need to bring on the first day of school:

- 2 boxes of Kleenex for classroom use
- 1 roll of paper towels for classroom use
- 2 Clorox wipes containers for classroom use
- 2 packages disinfecting wipes for classroom use
- 2 pairs of headphones/ear buds for In School Chrome book (must be left in school)
- You can bring your own chrome book to school but please see Miss Serio to register it on first day of school
- 6 single subject notebooks
- One package of blue or black pens (no other colors)
- One package of red pens for making corrections
- One package of hi- lighters
- One package of pencils for Math
- Glue sticks (2or3)
- Scissors
- Correction tape (no Liquid white-out)
- A one inch binder for Writing
- Package of tabbed dividers for Writing binder
- A one inch binder for Math (separate from Writing)
- 3x3 inch Post-it notes and ½ x1 ¾ inch post it tabs(for literature)
- A box or zippered container to hold school supplies
- A Box of colored pencils

<u>8th grade students mandatory and optional 7th grade students</u>

Purchase a Texas Instrument (TI 84) calculator. Stores run sales periodically, so look for special pricing

Dear Parents,

Students in Middle school are asked to purchase a Daily Planner book and Scholastic magazines for the year. The cost for both is $20.00. (If paying by check make it out to St. Joseph School) Please bring in payment the first day of school. Teachers will send home planners when payment is received.

Thank you

Middle School Teachers

Enjoy the summer break, but remember not to wait until the last minute to complete the assignments. If you have any questions, please email us. Thank you

6th grade homeroom – Mrs. Laferriere for middle school Science and World Language and 6th grade Social Studies

laferriere@stjosephbristol.org

7th grade homeroom – Miss Serio for middle school Language Arts and Literature and 7th grade History and Religion

serio@stjosephbristol.org

8th grade homeroom – Mr. Houle for middle school Math and 8th grade History and Religion

houle@stjosephbristol.org

Middle School Summer Reading Book Report Assignment

Directions: You are to choose ONE book from the Nutmeg Book Award Nominee lists (Middle school lists for grades 7 & 8 or Intermediate 4-6 for Grade 6)or the ALSC Summer Reading List for Grades 6-8. After reading, complete ONE of the questions below. Your question must be one FULL page (that means top to bottom of page) typed in MLA format. Be sure to type the question you are responding to beneath the heading.

1. What important lesson does your character learn in the story? Use examples from the story to support your answer.
2. If you wanted to describe how the main character changed in the story, choose the event that was most important. Describe the event and explain why it changed the character.
3. Think about what this story says about people in general. In what ways does it remind you of people you have read about? Support your answer with evidence from the story.
4. Choose the part of the story that you think was most important. Use information from the story to support your answer.
5. What will your character probably do next? Why do you think so? Use information from the story to support your answer.
6. Write an entry that could have appeared in your character's journal.
7. Which part of the story was most interesting or surprising? Use information from the story to support your answer.
8. Would you recommend this book to anyone? Why or why not? Discuss the character, the main conflict or how it is or isn't resolved or how realistic the character seems in his or her quest to resolve the conflict or how the author revealed the theme through the character and his or her problem. Is this how you would have handled the problem the character has? Why or why not? These are the reasons why we do or do not like books.

SUMMER READING LIST

Grades 6–8

BOOKS

ALMA PRESSES PLAY
BY TINA CANE
MAKE ME A WORLD, 2021
ISBN: 9780593121146

In this verse novel, half-Chinese, half-Jewish Alma comes to terms with her parents' divorce, her mother's move to a new state, a challenging end-of-the-year project, and her feelings about boys.

BLACK BIRD, BLUE ROAD
BY SOFIYA PASTERNACK
VERSIFY, 2022
ISBN: 9780358572039

This historical fantasy novel includes deep philosophical questions about life and death, alongside adrenaline-filled action, as a Jewish girl attempts to save her dying brother by any means necessary.

THE CHRONICLES OF DELTOVIA
BY OLIVIA JAIMES
ANDREWS MCMEEL, 2022
ISBN: 9781524871567

Middle-schoolers June, Misha, and Ollie decide to cowrite and illustrate their own book about a magical land called Deltovia. Their individual personalities and quirks come through in the different ways they approach the story and life.

THE DAVENPORTS
BY KRYSTAL MARQUIS
DIAL, 2023
ISBN: 9780593463338

In this historical fiction novel set in 1910s Chicago, a group of Black teens takes us into an often-overlooked side of American history: the lives of wealthy African Americans and their experience of classism, familial expectations, and gender norms.

DEMON IN THE WOOD
BY LEIGH BARDUGO, ILLUSTRATED BY DANI PENDERGAST
ROARING BROOK, 2022
ISBN: 9781250624642

The first graphic novel in the Grishaverse world offers a new format for fans and welcomes those new to the series. Readers will dive into the Darkling's backstory.

THE DOOR OF NO RETURN
BY KWAME ALEXANDER
LITTLE, BROWN, 2022
ISBN: 9780316441865

Kofi, an eleven-year-old boy from the village of Upper Kwanta, is ripped away from his family and community in this gripping novel in verse.

FREESTYLE
BY GALE GALLIGAN
GRAPHIX, 2022
ISBN: 9781338045819

Cory navigates changing friendships and social pressures while learning cool yo-yo tricks in this graphic novel.

FRIZZY
BY CLARIBEL A. ORTEGA, ILLUSTRATED BY ROSE BOUSAMRA
FIRST SECOND, 2022
ISBN: 9781250259622

Dominican tween Marlene learns to care for and appreciate her curly hair in this vibrant graphic novel about colorism, beauty standards, and self-acceptance.

GROWING PANGS
BY KATHRYN ORMSBEE, ILLUSTRATED BY MOLLY BROOKS
RANDOM HOUSE, 2022
ISBN: 9780593301289

A graphic novel about the first time at sleepaway camp, feeling different as a homeschooled student, and traversing the ever-present effects of OCD.

I LIKE ME BETTER
BY ROBBY WEBER
INKYARD PRESS, 2023
ISBN: 9781335453648

Another heartwarming summer rom-com from Weber. When your summer plans fall apart, love can show up in unexpected places. Zack takes the fall for his soccer team and ends up having to do community service for the summer.

INVISIBLE
BY CHRISTINA DIAZ GONZALEZ, ILLUSTRATED BY GABRIELA EPSTEIN
GRAPHIX, 2022
ISBN: 9781338194555

In this graphic novel, five middle-school students find out that they have been lumped together because their teachers assumed, since they all speak Spanish, that they'd have tons in common. This couldn't be farther from the truth!

KARTHIK DELIVERS
BY SHEELA CHARI
AMULET, 2022
ISBN: 9781419755224

Rising ninth-grader Karthik spends the summer of 2009 working as the delivery boy for his family's failing grocery store. Unbeknownst to his family, he's also acting in a play about Leonard Bernstein.

THE KATE IN BETWEEN
BY CLAIRE SWINARSKI
QUILL TREE BOOKS, 2021
ISBN: 9780062912701

Kate is being celebrated after rescuing a classmate from drowning, but what happens when everyone finds out what really happened that day at the lake?

THE LAST MAPMAKER
BY CHRISTINA SOONTORNVAT
CANDLEWICK, 2022
ISBN: 9781536204957

Sai, an assistant to Mangkon's best mapmaker, is working hard to make her life better. A mapmaking trip to explore the Sunderlands, a place with dragons and other treasures, might be the way to achieve that.

LOLO'S LIGHT
BY LIZ GARTON SCANLON
CHRONICLE BOOKS, 2022
ISBN: 9781797212944

The morning after twelve-year-old Millie babysits for her neighbors, she learns that the infant she watched passed away

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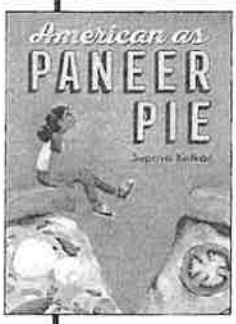
ASSOCIATION FOR LIBRARY SERVICE TO CHILDREN

2024 Nutmeg Book Award Intermediate Nominees

Grades 4-6

The Accidental Apprentice *by Amanda Foody*

Barclay is an apprentice to a local mushroom farmer. One of the rules in his town is to NEVER go in the woods. One day though, while searching for a mushroom, he becomes an apprentice to something even bigger than he thought, which alters his whole identity, and life itself.



American as Paneer Pie

by Supriya Kelkar

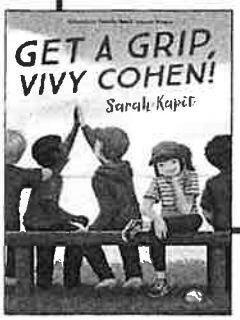
Lehka, a Desi girl, gets bullied a lot at school. She finds herself feeling alone and doesn't know how to do anything about it. But then, another Desi girl comes to town and shows Lehka how to stand up for herself!

The Beast and the Bethany *by Jack Meggitt-Phillips, art by Isabelle Folath*

Ebenezer Tweezer is a week away from his 512th birthday thanks to the beast in his house that keeps him alive (and looking so young)! But the beast needs to be fed, and this time, it is demanding a child. Will a terrible little girl like Bethany satisfy its hunger?

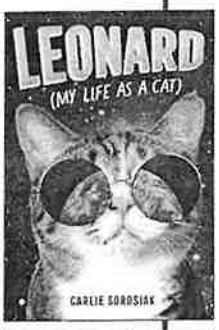
Ben Yokoyama and the Cookie of Doom *by Matthew Swanson & Robbi Behr*

After ordering Chinese food for the first time, eight-year-old, noodle-loving Ben Yokoyama receives an intriguing fortune cookie message. Can Ben and best friend Janet fulfill his fortune while avoiding his love of mischief?



Get a Grip Vivy Cohen! *by Sarah Kapit*

Vivy Cohen has perfected her knuckle ball. Now, she must convince her overprotective mother to let her join a real team. Told through a series of letters and emails between Vivy and all-star VJ Capello; will Vivy be able to prove once and for all what an amazing pitcher she is?



Leonard (My Life as a Cat) *by Carlie Sorosiak*

Leonard is an alien visiting earth…as a cat. Taken in by animal lover, Olive, he has 30 days to travel 2,000 miles to his rendezvous point, or he'll be stuck on Earth forever…as a cat. But after he grows close to Olive, is home with her or with his species?

The Lion of Mars

by Jennifer L. Holm

Life on Mars has a lot of rules, like 'Don't go beyond the compound.' Now all the adults are sick. When Bell and the other kids find a secret tunnel--leading to another colony--can they bend the rules and overcome the adults' distrust of others to find help and save themselves?

Raising Lumie

by Joan Bauer

Moving to a new town with her older sister is enough of a challenge for Olive. Throw in training a sweet new puppy to be a seeing eye dog, and Olive has her hands full. How will she manage it all?

Scritch Scratch

by Lindsay Currie

After Claire starts being haunted by a real ghost while helping her dad with his ghost tour business, she knows she needs to investigate! In her investigation, she learns about Chicago's history while also learning about a little boy, eerily similar to the ghost on the bus.

Witches of Brooklyn

by Sophie Escabasse

When a famous star shows up at your house asking for help, you have to answer the door, right? But what happens when reality interrupts perception-it's witches to the rescue!

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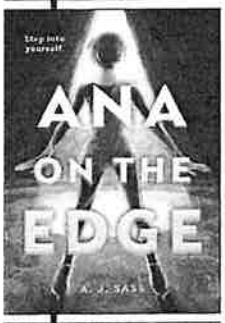
2024 Nutmeg Book Award Middle School Nominees

Grades 7-8

Amari and the Night Brothers *by B. B. Alston*

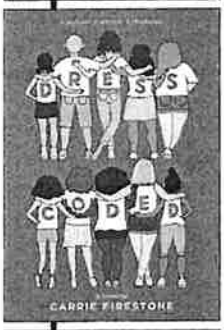
Following the disappearance of her older brother, Amari is introduced to a new world full of magic, where she must compete to take his place at the Bureau of Supernatural Affairs. Yet, not only is she at a disadvantage against her more magic-savvy peers, a shocking turn of events reveals she may be more powerful than she realizes. Will Amari be able to emerge triumphant and find her brother - before it's too late?



Ana on the Edge

by A. J. Sass

Twelve-year-old Ana has been a competitive figure skater for years. This year is a hard year for Ana because her coach moved rinks which makes her commute long and her practice days hard. It affects her friendship and her new competition level brings hardships she wasn't expecting. This leads to new friendships and more questions than Ana ever knew existed.



Dress Coded

by Carrie Firestone

After witnessing a classmate humiliated over her outfit, 8th grader Molly Frost starts a podcast to protest her school's unfair dress code. As more and more students share their stories of being "dress coded," her protest snowballs into a full fledged revolution.

Fighting Words

by Kimberly Brubaker Bradley

Della and her older sister Suki are inseparable. Ever since their mother went to jail and her boyfriend took them, Suki has taken care of and protected Della. When the girls are sent to live in foster care things start to improve. But an incident involving Suki makes Della realize how much her big sister has shouldered. To get the help they need, Della must learn to speak up.

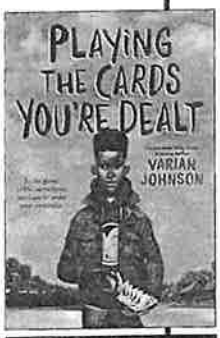
Other Words for Home

by Jasmine Warga

Jude leaves behind her brother and father to travel to the United States with her mother for refuge. Trying to bridge the differences between her Syrian life and her new home in Cincinnati, Jude searches for an identity that fits all of her.

Playing the Cards You're Dealt *by Varian Johnson*

Ten-year-old Anthony ("Ant") Joplin is navigating fifth grade, girls, best friends, and the family tradition of competing in the annual Spades Tournament. If that isn't enough, secrets threaten to tear it all apart in this hopeful look at legacies.



Spin *by Lamar Giles*

When rising star DJ Parsec is found murdered just before a big show, her ex-best friend Kya and biggest fan Fuse are determined to find out who killed her and why. But uncovering the truth may be more dangerous than they realize.

Stowaway

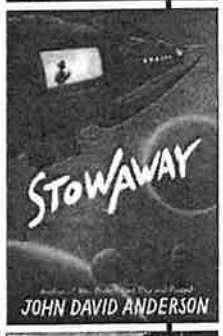
by John David Anderson

The ship was all Leo has known for the past 3 years. His father brought the whole family on the Ayakari ship, and they are showing no signs of stopping. That is, until the pirates come. Bonded by trauma, an unlikely alliance forms between child and pirate, looking to stop the evil encroaching on their land in this action-packed sci-fi novel.

Swim Team

by Johnnie Christmas

When Bree and her father move from New York to Florida, she can't wait to join her new Middle School STEM club. But when the only elective she can fit in her schedule is Swim 101, she's not only faced with learning to swim, but with helping her school swim team make it to the State Championships.



The Weight of Our Sky

by Hanna Alkaf

After getting separated from her mother, Melati must navigate her war-town home of Kuala Lumpur, Malaysia in an effort to reunite with her. However, Mel is contested by Chinese rioters as well as her own OCD, which manifests as a djinn within her mind. Joined by a Chinese boy named Vincent, Mel must overcome all that stands in her way to ensure her mother's safety.

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Dear incoming 7th and 8th grade parents,

Now that the current academic year has come to a close and we look forward to summer, we also look forward to the upcoming year. It has been determined that all eighth grade students will be taking algebra during the upcoming academic year. It is requested that all students consider purchasing a TI-84 calculator. The cost can range from $125.00 and up. Look for the sales over the summer. This machine will be used often throughout the current academic year on into college. It is suggested that parents consider obtaining the optional insurance plan offered at the time of purchase due to accidents. Please be advised that there will be a considerable amount of homework for class. (On average 30 to 40 minutes four times a week depending on the type of lesson).

I would like to also inform parents that additional work assignments found on the computer/chromebook may also be required. I look forward to working with your sons and daughters in the upcoming school year. I promise, they will be challenged.

Respectfully,

Mr. Houle

Summer Packet

Grade 8

Dear Students,

This math packet is to be completed by the beginning of the upcoming school year and will be counted as a grade. Students failing to pass in the assignment at this time will result in a zero. All students should continue to practice their times tables up to 15 in addition to taking time to practice on Kahn Academy.

Have a great summer!

Mr. Houle

Name _____ Class _____ Date _____

End-of-Course

Circle the letter of the best answer.

1. Evaluate $3y - 2x$ for $x = 4, y = -2$.
   A. 16 B. -14 C. -2 D. 8

2. Solve $-4z \geq -3$.
   F. $z \geq -\frac{3}{4}$ G. $z \leq \frac{3}{4}$ H. $z \leq -\frac{3}{4}$ J. $z \geq \frac{3}{4}$

3. Which of the following is the best estimate of $73.92 \div 24.497$?
   A. 0.3 B. 30 C. 50 D. 3

4. Evaluate -8^2.
   F. 64 G. -64 H. -256 J. -16

5. Choose the prime number.
   A. 945 B. 927 C. 937 D. 934

6. Add $\frac{5}{8} + \frac{2}{3}$.
   F. $\frac{7}{11}$ G. 13 H. $1\frac{7}{24}$ J. $\frac{5}{12}$

7. Which number is equal to $\frac{18}{5}$?
   A. 3.5 B. 3.6 C. 3.8 D. $0.2\overline{7}$

8. Write $\frac{1}{8}$ as a percent.
   F. 1.25% G. 125% H. 12.5% J. 0.125%

9. Find 60% of 108.
   A. 180 B. 64.8 C. 72 D. 33.3

10. Find the percent of change from 125 to 150.
    F. $16\frac{2}{3}\%$ G. 20% H. 25% J. $83\frac{1}{3}\%$

11. Solve $2x - 15 > 3$.
    A. $x < -6$ B. $x > -6$ C. $x < 9$ D. $x > 9$

12. Which ordered pair is a solution to the system $2x + y = 2$ and $x - y = 4$?
    F. $(2, 0)$ G. $(4, 0)$ H. $(2, -2)$ J. $(3, -4)$

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Name _____ Class _____ Date _____

End-of-Course

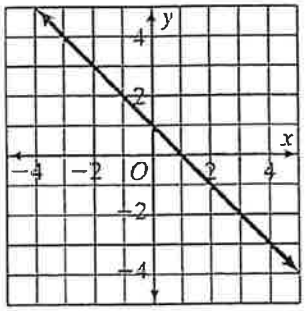
13. Which of the following equations is shown in the graph?

A. $x + y = 1$

B. $x - y = 1$

C. $x + y = -1$

D. $x - y = -1$



14. Find the slope of the line that contains the points $(-4, -2)$ and $(3, -3)$.

F. $\frac{5}{7}$ G. $-\frac{5}{7}$ H. $\frac{1}{7}$ J. $-\frac{1}{7}$

15. What is the measure of an angle that is supplementary to an angle measuring 42°?

A. 138° B. 48° C. 96° D. 125°

16. A quadrilateral has opposite sides parallel and one right angle. Which of the following can it *not* be?

F. parallelogram G. rectangle H. kite J. rhombus

17. Find the surface area of a rectangular prism with length 4 yd, width 3 yd, and height 2 yd.

A. 24 yd^2 B. 92 yd^2 C. 14 yd^2 D. 52 yd^2

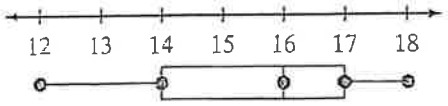
18. Which of the following could be the lengths of the sides of a right triangle?

F. 27, 36, 45 G. 23, 35, 48 H. 10, 30, 35 J. 5, 8, 11

19. Find the distance between the points $A(7, -4)$ and $B(-1, -2)$.

A. 10 B. about 8.2 C. about 6.3 D. about 8.5

20. What is the median of the data shown in the box-and-whisker plot?



F. 16 G. 14 H. 17 J. 12

21. A box contains 4 quarters, 3 dimes, and 2 nickels. You draw out two coins and keep them both. What is the probability that both are quarters?

A. $\frac{16}{81}$ B. $\frac{4}{27}$ C. $\frac{1}{6}$ D. $\frac{2}{9}$

22. Which of the following statements is *not* true?

F. 2 km > 1,850 m G. 12 oz > $\frac{3}{8}$ lb H. $1\frac{1}{2}$ yd < 5 ft J. 3 qts < $\frac{1}{2}$ gal

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Name _____ Class _____ Date _____

End-of-Course

Simplify.

23. $4 - 3(7 - 9) \div 2$ _____

24. $8x - 5(x - 3) + 7$ _____

25. $(a^2b)^4 \cdot (ab)^2$ _____

26. $\frac{14mn}{21m^2}$ _____

27. $(x^2 - 5x + 1) - (x^2 - 2x - 4)$ _____

28. $(2y - 5)(y - 2)$ _____

Solve each equation.

29. $y + 2.4 = 0.5$ $y =$ _____

30. $\frac{2}{3}x = 8$ $x =$ _____

31. $5x - 9 = -19$ $x =$ _____

Use the data in the table for Exercises 32–36. Round to the nearest hundredth.

32. Find the mean. _____

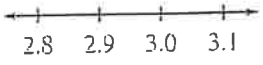
33. Find the median. _____

34. Find the mode. _____

35. Find the range. _____

April Showers	
City	Precipitation (inches)
Burlington, VT	2.8
Cleveland, OH	3.1
Juneau, AK	2.8
Kansas City, MD	3.1
Miami, FL	2.9
Oklahoma City, OK	2.8

36. Make a line plot of the data in the table.



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Name _____ Class _____ Date _____

37. Tell whether the sequence is *arithmetic*, *geometric*, or *neither*. Find the next three terms. Write a rule to describe the sequence.

8, −4, 2, −1, _____, _____, _____

type: _____

rule: _____

38. To make a circle graph of the following information, what should the measure of each central angle be?

Forty students were asked their favorite type of electronic game. Fourteen said sports games, eight said fighting games, eleven said maze games, and seven said they do not play electronic games.

sports _____

fighting _____

maze _____

don't play _____

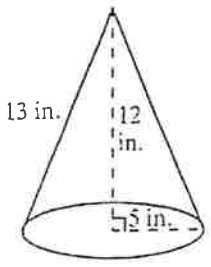
For Exercises 39 and 40, find the coordinates of the image of a segment whose endpoints are $M(-2, 3)$ and $N(-4, -1)$ after each transformation.

39. a reflection over the y-axis _____

40. a rotation of 180° about the origin _____

41. Find the volume of the space figure below. Use 3.14 for π.

_____



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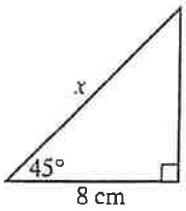
Name _____ Class _____ Date _____

End-of-Course

Find each missing length x to the nearest tenth of a unit.

42.



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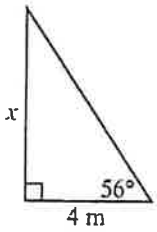
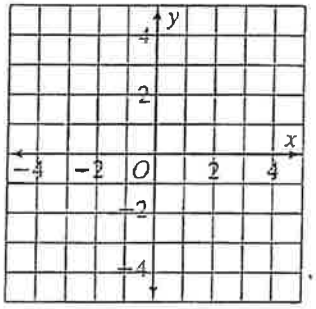
43. Note: sin 56° ≈ 0.8290, cos 56° ≈ 0.5592, and tan 56° ≈ 1.4826

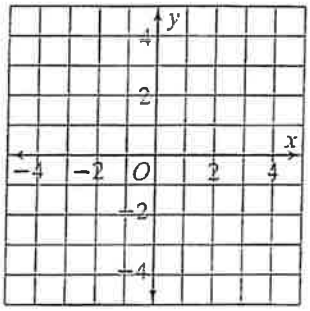


_____

44. Graph $y < \frac{2}{3}x + 2$



45. Graph $y = -x^2 + 4$



46. At 3:00 P.M. the temperature was 2° below zero. It then fell 4° in the next 2 hours. What was the temperature at 5:00 P.M.?

_____

47. A store buys jeans for $24 each and marks them up 30%. What is the selling price of a pair of jeans?

_____

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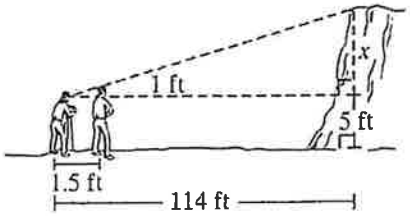
Name _____ Class _____ Date _____

48. To find the height of a cliff, a surveyor sites a straight line from the top of her 6-foot-tall assistant's head to the top of the cliff. The surveyor is 114 ft from the base of the cliff and 1.5 feet from her assistant. Her eye is 5 feet off the ground. Write and solve a proportion to find x in the diagram below and then find the height of the cliff.



proportion: _____

x = _____

height of cliff: _____

49. In how many orders can Carlos memorize the names of the 5 great lakes?

_____

50. Write a word problem that could be solved with the equation $0.15x + 200 = 650$.

_____

_____

_____

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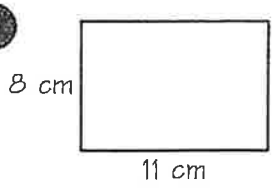
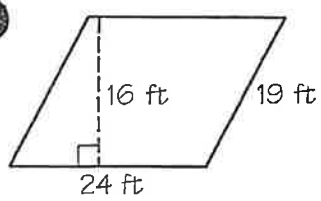
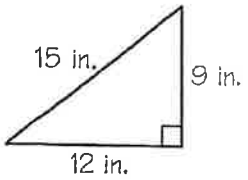
Why Did the Chicken Hit Her Egg With an Ax?

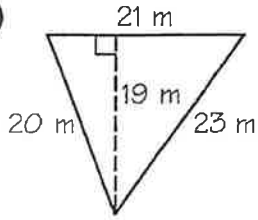
Do each exercise and find your answer below. Circle the number-letter next to it. Write the letter in the matching numbered box at the bottom of the page.

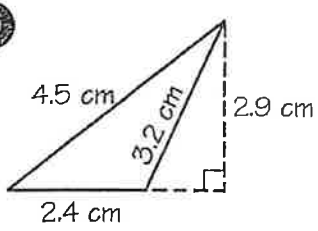
A. Find both the perimeter and the area of each figure.

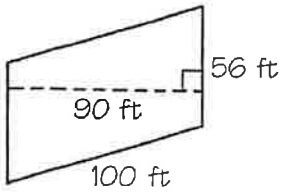
1. 

2. 

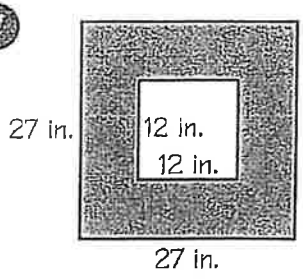
3. 

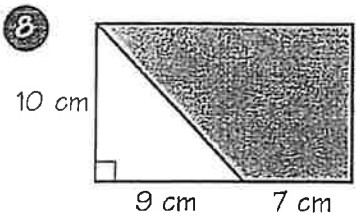
4. 

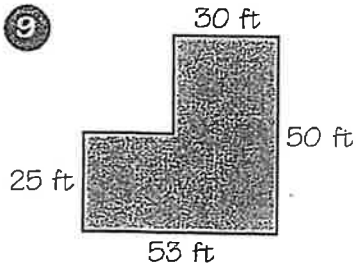
5. 

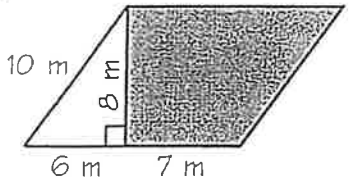
6. 

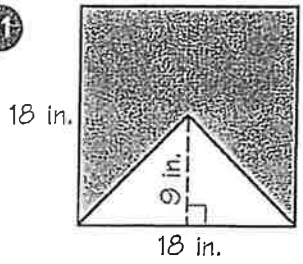
B. Find the area of the shaded region in each figure.

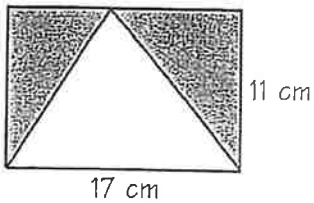
7. 

8. 

9. 

10. 

11. 

12. 

33 in. 9-R 64 m 16-A		328 ft 21-A 38 cm 8-T		10.1 cm 1-S 36 in. 13-O		67 m 1-T 11.4 cm 12-L		86 ft 3-E 312 ft 10-D	
267 in.^{2} 14-P 88 cm^2 19-H 243 in.^{2} 7-N 5040 ft^2 2-H		115 cm^2 12-T 534 in.^{2} 5-R 97.5 cm^2 20-S 199.5 m^2 9-E		1915 ft^2 7-S 80 m^2 18-C 384 ft^2 6-A 92 m^2 15-M		3.48 cm^2 17-T 62 in.^{2} 17-K 2075 ft^2 5-W 54 in.^{2} 22-T		106 cm^2 18-O 585 in.^{2} 21-I 93.5 cm^2 15-H 3.72 cm^2 2-P	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

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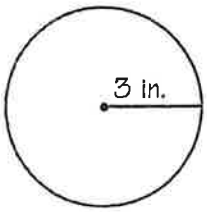
What Did the Pencil Say to the Paper?

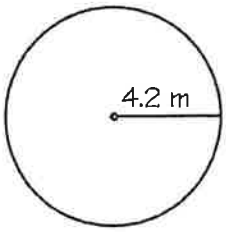
Write the letter of each exercise in the circle above or below its answer at the bottom of the page. Some answers are rounded. Use 3.14 for π.

I *Use the diameter (d) or radius (r) of each circle to find the circumference (C).*



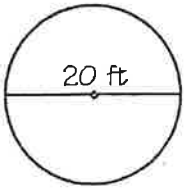
Y $d =$

S $C =$



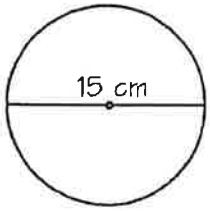
O $d =$

U $C =$



E $r =$

O $C =$



T $r =$

Y $C =$

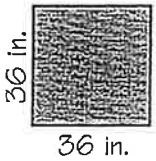
II *Solve. Round your answers to Exercises I, O, and N to the nearest whole number.*

I Mia enjoys in-line skating. The diameter of the wheels on her skates is 65 mm. How far do her skates travel with each turn of the wheels?

E The distance from the center of an archery target to the outside edge of the target is 24 in. What is the diameter of the target?

O The world's largest Ferris wheel is the Cosmoclock 21 in Yokohama, Japan. The wheel has a radius of 164 ft. How far would you travel in one turn of this wheel?

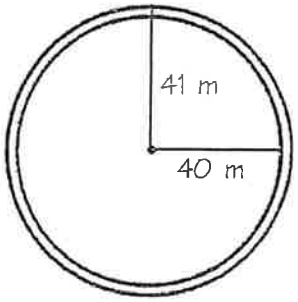
M Rex has a square sheet of plywood that measures 36 in. on each side. What is the radius of the largest circular disk that he can cut from this sheet?



N Ray Kozak set a record for spinning the largest rodeo loop. He spun a loop of rope with a diameter of 78 ft. How many feet of rope did he need for the loop?

D The minute hand of a clock is 7 in. long. How far does the point of the hand travel in 60 minutes?

Y Two runners are to race one lap on a circular track. The radius to the inside lane is 40 m. The radius to the outside lane is 41 m. How much of a head start should the outside runner be given?



416 ft	8.4 m	49.3 cm	6 in.	10 ft	48 in.	7.42 m	245 ft	47.1 cm	26.38 m

204 mm	43.96 in.	7.5 cm	18 in.	44.16 in.	6.28 m	18.84 in.	62.8 ft	218 mm	1030 ft

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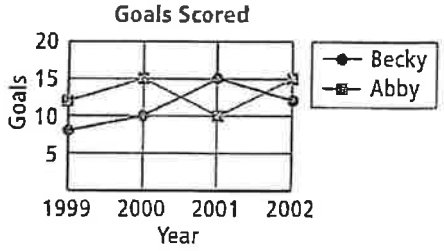
Name _____ Class _____ Date _____

Beginning-of-Course Diagnostic Test

1. The line graph shows the number of goals scored each year by Becky and Abby over their high school soccer careers. In which year did Becky and Abby together score the most goals?

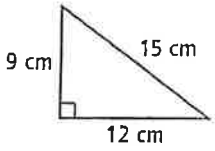


2. Estimate the sum of \$14.30, \$143.08, and \$19.74 by rounding.

3. Divide $\frac{2}{5} \div \frac{1}{8}$. Write the answer in simplest form.

4. Paul, Steve, Robin, and Ryan all play different instruments. Their instruments are guitar, bass guitar, piano, and drums. Robin's instrument is not a string instrument. Paul does not play bass guitar or piano. Ryan's instrument has only four strings. Which instrument does each play?

5. Find the perimeter.



6. Write five equivalent fractions for $\frac{7}{8}$.

7. Find three consecutive even integers whose sum is 180.

8. Use a factor tree to write the prime factorization of 430.

9. Write 3.04 as a percent.

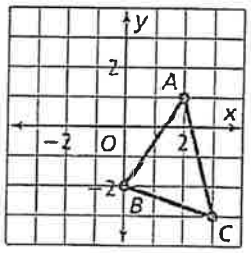
10. This week Lera withdrew \$150 from her checking account. She wrote a check for \$275, made a deposit of \$200, and then wrote another check for \$75. She now has \$185 in her account. How much did Lera have in her account at the beginning of the week?

11. Find the GCF of 15 and 27.

12. Write 3.1818 . . . as a fraction in simplest form.

13. Find a four digit number that is divisible by 3, 5, and 8.

14. Graph the image of $\triangle ABC$ after a translation of 3 units left and 2 units up.



15. Subtract $6\frac{3}{4} - 4\frac{11}{12}$. Write the answer in simplest form.

16. Troy is writing a book of short stories. It is his goal to write one short story this month, two short stories next month, three short stories the following month, and so on for 13 more months. How many stories will he have written at the end of sixteen months?

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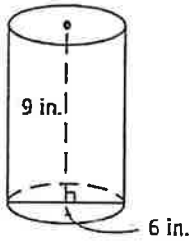
Name _____ Class _____ Date _____

Beginning-of-Course Diagnostic Test (continued)

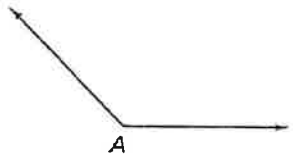
17. Find the volume of the following figure.



18. Find the LCM of 15 and 27.

19. Graph the triangle with vertices $A(-1, 3)$, $B(-3, -2)$, $C(0, -1)$. Then graph its image after a reflection over the y-axis.

20. Use a protractor to measure the angle and classify it as *acute, right, obtuse,* or *straight.*



21. Multiply $4\frac{2}{3} \cdot 5\frac{1}{6}$. Write the answer in simplest form.

22. Draw a line plot for the frequency table.

Number	8	9	10	11	12
Frequency	3	4	6	2	1

23. When seating guests at a round table, two arrangements are considered the same if each person has the same neighbor to the left and to the right in each arrangement. Find the number of unique arrangements when seating 2, 3, and 4 guests at a round table. Use these results and the fact that 24 unique arrangements are possible when seating 5 guests to find the number of unique arrangements when seating 6 guests.

24. Write 3624 in expanded form using exponents.

25. There are 20 guests at a party. If each person shakes hands with every other person exactly once, how many total handshakes will occur?

26. Below are the number of hours Grace spent reading during each week of her summer vacation. Make a box-and-whisker plot. Determine the median and mean number of hours Grace spent reading each week.

14 11 18 10 15 14 20 12 13 10 17

27. Write $6^2 \cdot 3^3$ in standard form.

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