7th Grade, Week 3/23-3/27
***Last day of the quarter 3/27 all late/missing work due 3/23!!
This week's work goes toward Quarter 4. Start Strong!

Monday:

Math- Review, complete pg 381 19-34 (try not to use anything but your notes to guide you, if you need to look back at the book or other resources add the material you needed to your notes)

Tuesday: Virtual meeting at 10:00 am. Check your google calendar for the link.

Math- Review, complete pg 382 35-50 (try not to use anything but your notes to guide you, if you need to look back at the book or other resources add the material you needed to your notes)

Science- Lesson 11.2 pg 435-442, Notes: vocab, pg 442 1-7

History- Watch The Age of Exploration: Crash Course #4 (YouTube)

https://www.youtube.com/watch?v=wOclF9eP5uM

After watching the video complete a writeup where you provide 3 perspectives of each: Portuguese and European Explorers. Also, include at least 5 interesting facts from the video.

Wednesday:

Math- Review, complete pg 382 51-60 (try not to use anything but your notes to guide you, if you need to look back at the book or other resources add the material you needed to your notes)

** Elective- if you have yearbook and have items to work on please feel free to work on it.

Thursday: Virtual meeting at 10:00 am. Check your google calendar for the link. Bring all your questions.

Math- Practice Test

Science- Reflection of Light With a Plane Mirror- Trace a Star Activity

History- Lesson 10.1 Read pgs 486-492, Notes: Content Vocab and main ideas Assignment: pg 492 1-3, 5

Friday:

Math- Chpt 8 Test (you must show ALL work in order to get credit. Missing work will result in a 50% deduction on your score)

Test, Form 2B

Write the letter for the correct answer in the blank at the right of each question.

1. What is the solution to the equation $4.5x = -36.9$?

    A. $x = -8.2$ **B.** $x = -1.2$ **C.** $x = -32.4$ **D.** $x = 41.4$

    1. _____

2. Carole sewed 32 sequins on a dress in $\frac{2}{5}$ hour. At this rate, how many sequins could she sew in one hour?

    F. 12 sequins   **H.** 80 sequins

    G. 64 sequins   **J.** 160 sequins

    2. _____

3. The solution to which equation is graphed at -5 on the number line?

    A. $3.6x - 2.25 = -15.75$ **C.** $-2.1x + 6.45 = 13.95$

    B. $-2.4x - 10.25 = 1.75$ **D.** $1.8x - 4.45 = 4.55$

    3. _____

4. An annual pass to an amusement park costs $87.95 per person. If the park makes $52,770 from thes sale of passes, which equation can you use to find the total number of annual passes purchased?

    F. $87.95 + p = 52{,}770$ **H.** $87.95 - p = 52{,}770$

    G. $87.95p = 52{,}770$ **J.** $52{,}770p = 87.95$

    4. _____

5. Of the following equations, which has the correct solution?

    A. $5x + 7 = 3; x = -2$

    B. $20x - 4 + 10 = 6; x = -\frac{1}{2}$

    C. $10x - 2x - 5 = -1; x = \frac{1}{2}$

    D. $\frac{4}{7}x - 4 = 2; x = \frac{1}{2}$

    5. _____

6. The perimeter of the triangle shown is 24 meters. What is the length of the longest side of the triangle?
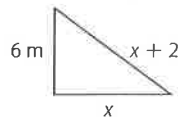
    F. 2 meters   **H.** 8 meters

    G. 6 meters   **J.** 10 meters

    6. _____

7. Solve $0.5(-6x + 12) = 9$.

    A. $x = -3$ **B.** $x = -1$ **C.** $x = 1$ **D.** $x = 3$

    7. _____

Test, Form 2B   *(continued)*

8. An artist creates 8 identical ceramic bowls. The bowls contains some glass and 59.2 pounds of clay. The artist uses a total of 73.6 pounds of clay and glass to make the bowls. Each bowl contains how many pounds of glass?

   F. 1.4 pounds   G. 1.8 pounds   H. 11.2 pounds   J. 14.4 pounds

   8. _____

9. Four students solved the equation $\frac{3}{5}a - 4 = \frac{2}{5}a - 6$, but had four different solutions. What is the correct solution to the equation?

   A. $a = -2$ B. $a = \frac{7}{12}$ C. $a = -10$ D. $a = 50$

   9. _____

10. Five times the quantity $s + 6$ equals three times the quantity $s - 2$. What value of s makes this sentence true?

    F. $s = -18$ G. $s = -12$ H. $s = 8$ J. $s = 12$

    10. _____

11. The sentence, *two less than the product of three and a number is greater than 9 times the opposite of the number*, translates to which mathematical statement?

    A. $3n - 2 > \frac{9}{n}$

    B. $3n - 2 < -9n$

    C. $3n - 2 = \frac{9}{n}$

    D. $3n - 2 > -9n$

    11. _____

12. The cost of a tank of gas at \$4.35 per gallon was at most \$72. Which inequality can be used to find out how many gallons of gas was purchased?

    F. $4.35g < 72$ H. $4.35g > 72$

    G. $4.35g \geq 72$ J. $4.35g \leq 72$

    12. _____

13. Michelle earns \$7 per hour and gets a 10% commission on the price of each item she sells. She wants to work 10 hours each week, and earn at least \$200. Which inequality and solution shows the total weekly sales she must make to reach her goal?

    A. $(7)(10) - 1.10s \geq 200, s = 118.18$

    B. $(7)(10)(0.10)s \geq 200, s = 28.25$

    C. $(7)(10) + 1.10s \leq 200, s = 118.18$

    D. $7(10) + 0.10s \geq 200, s = \geq 1300$

    13. _____

14. Solve and graph the solution to the inequality: $3(5 + x) \leq 18$.

    14. _____

15. The sum of an integer and the next greater integer is at most 15. Write an inequality to find the lesser integer. Then solve for the lesser integer.

    15. _____

Reflection of Light With a Plane (Flat) Mirror—Trace a Star

Objective

The student will experiment with reflection by using a plane mirror.

Science and Mathematics Standards

Science Standards
☑ Science as Inquiry
☑ Physical Science

Mathematics Standards
☐ Problem Solving
☑ Communication
☐ Connection
☐ Computation/Estimation
☑ Measurement

Theory

Flat mirrors are also called plane mirrors. Light rays that fall upon a surface are called incident rays. The angle at which light strikes a plane mirror from an object is called the angle of incidence. The angle at which light is reflected from the mirror is called the angle of reflection.
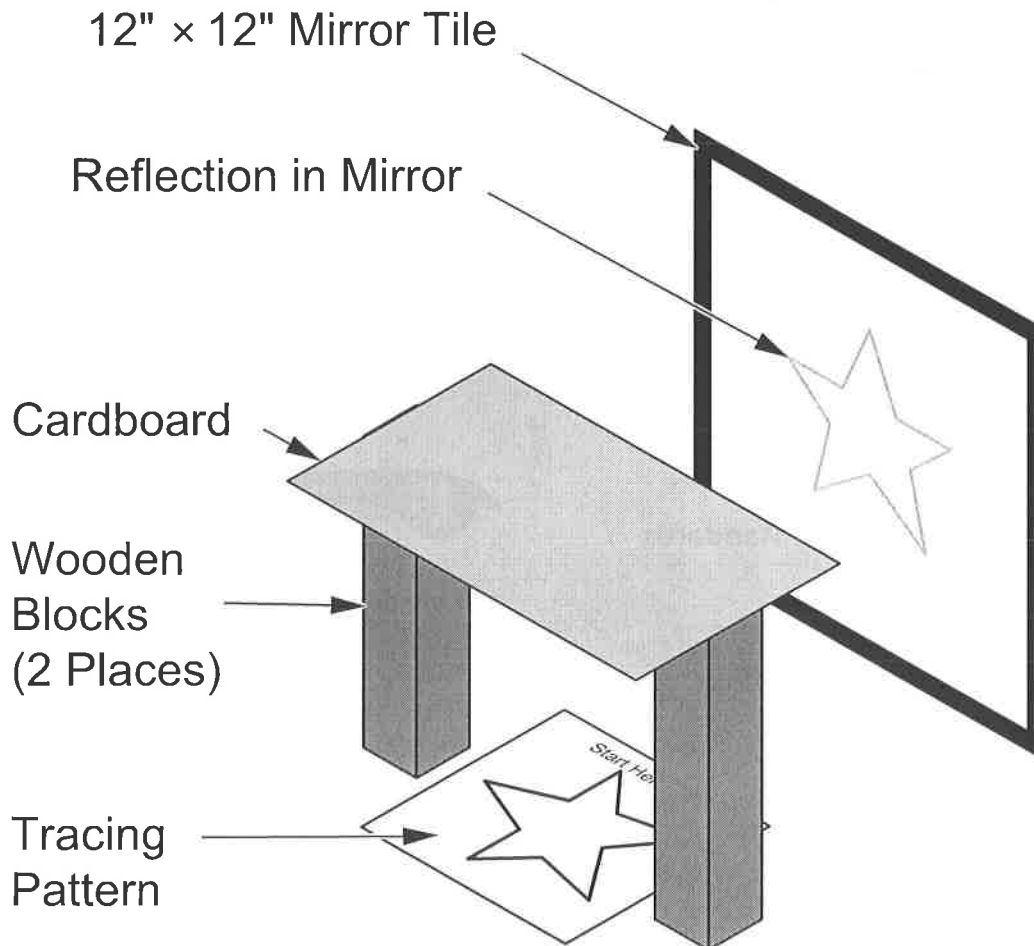
Materials

- 2 blocks of wood 8 inches long
- 1 piece of cardboard 8 inches × 5 inches
- 1 mirror tile (1 foot square backed with heavy cardboard sealed on the edges with thick tape)
- thick tape (duct tape)
- heavy cardboard
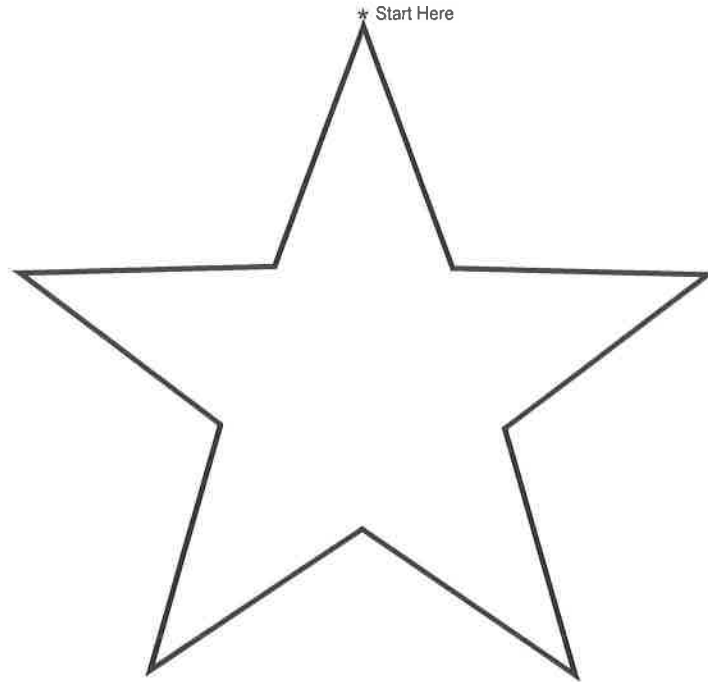- tracing patterns (on page 15)
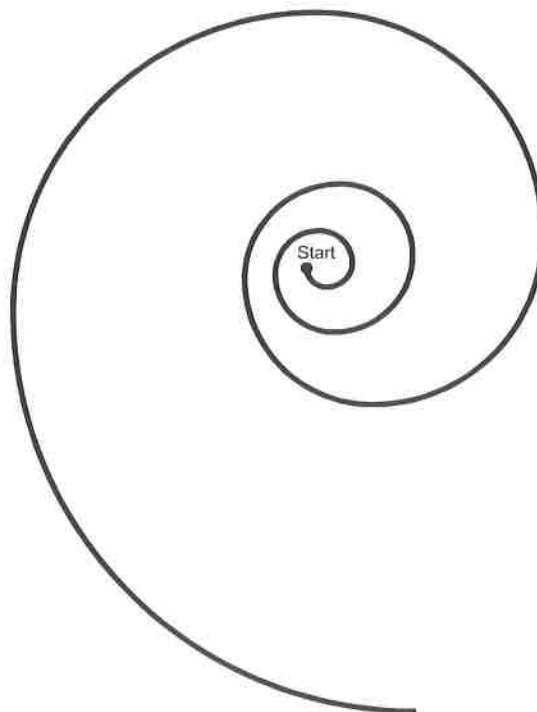- pencil
- paper, white

1. Stand the mirror at 90 degrees to the surface of the table.

2. Stand the two wooden blocks on the ends. Position them parallel to each side of the mirror and 10 inches from the face of the mirror.

3. Place the cardboard horizontally across the top of the two wooden blocks. Place a paper tracing pattern on the flat surface between the two blocks of wood.

4. Place your finger or pencil at the starting point on the pattern.

5. Look only in the mirror and trace the star pattern found on page 5. Now trace the swirl pattern also on page 5.

12" × 12" Mirror Tile

Reflection in Mirror

Cardboard

Wooden
Blocks
(2 Places)

Tracing
Pattern

Light, Color, and Their Uses

Tracing Pattern #1

★ Start Here

Tracing Pattern #2

Start

Observations, Data, and Conclusions

1. What did you learn after tracing the two patterns?

2. What information did your eyes give you?

3. What information did your brain or body give you?

4. Where did the hand in the mirror seem to be located when you looked in the mirror?

5. Is it harder to trace a pattern with your finger or with a pencil? Why?

6. What characteristic of light did you learn about when you did this activity?

7. After completing these questions, draw some designs of your own. Exchange your designs with another student and trace their designs.

Design Page

Test, Form 2A

Write the letter for the correct answer in the blank at the right of each question.

1. What is the solution to the equation $-6.5x = 59.8$?

    A. $x = -9.2$ **B.** $x = -1.1$ **C.** $x = 53.3$ **D.** $x = 66.3$ 1. _____

2. Taylor attached 24 ribbons to a jacket in $\frac{4}{5}$ hour. At this rate, how many ribbons could he attach in one hour?

    F. 19 ribbons   **H.** 96 ribbons

    G. 30 ribbons   **J.** 120 ribbons   2. _____

3. The solution to which equation is graphed at 5 on the number line?

    A. $1.8x - 4.45 = 4.55$ **C.** $2.4x + 10.25 = -1.75$

    B. $2.1x + 6.45 = -4.05$ **D.** $3.6x + 2.25 = -15.75$ 3. _____

4. An annual pass to a zoo costs $43.25 per person. If the park sold $3762.75 of passes, which equation can you use to find the total number of annual passes purchased?

    F. $43.25 + p = 3762.75$ **H.** $43.25 - p = 3762.75$

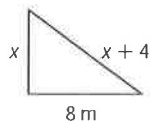   **G.** $43.25p = 3762.75$ **J.** $3762.75p = 43.25$ 4. _____

5. Of the following equations, which has the correct solution?

    A. $5x + 7 = 13; x = -4$

    B. $20x - 4 + 10 = -1; x = -\frac{1}{4}$

    C. $12x - 8x - 5 = -4; x = \frac{1}{4}$

    D. $\frac{4}{2}x - 4 = 2; x = \frac{1}{4}$ 5. _____

6. The perimeter of the triangle shown is 24 meters. What is the length of the shortest side of the triangle?

    F. 2 meters   **H.** 8 meters
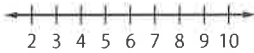
    G. 6 meters   **J.** 10 meters   6. _____

7. Solve $0.5(8x - 12) = -10$.

    A. $x = -4$ **B.** $x = -1$ **C.** $x = 1$ **D.** $x = 4$ 7. _____

Test, Form 2A   (continued)

8. An artist creates 9 identical ceramic vases. Each vase contains some clay and 1.5 pounds of glass. The artist uses a total of 49.5 pounds of clay and glass to make the vases. Each vase contains how many pounds of clay?

   F. 4 pounds   G. 6 pounds   H. 8.5 pounds   J. 12.5 pounds   8. _____

9. Four students solved the equation $\frac{a-7}{10} = \frac{a-2}{8}$, but only one of their solutions checked. What is the correct solution to the equation?

   A. $a = -18$ B. $a = 3$ C. $a = 11$ D. $a = 18$ 9. _____

10. Three times the quantity $h + 4$ equals four times the quantity $h - 1$. What value of h makes this sentence true?

    F. $h = 3$ G. $h = 5$ H. $h = 8$ J. $h = 16$ 10. _____

11. The sentence, *six less than the product of four and a number is less than 0.5 times the opposite of the number,* translates to which mathematical statement?

    A. $4n - 6 = -0.5n$ C. $4n - 6 < -0.5n$

    B. $6 - 4n < \frac{0.5}{n}$ D. $6 - 4n > \frac{0.5}{n}$ 11. _____

12. The cost of a tank of gas at \$4.18 per gallon was at most \$58. Which inequality can be used to find out how many gallons of gas were purchased?

    F. $4.18g < 58$ H. $4.18g > 58$

    G. $4.18g \geq 58$ J. $4.18g \leq 58$ 12. _____

13. Maria earns \$8 per hour plus a 5% commission on the price of each item she sells. She wants to work 15 hours each week, and earn at least \$200. Which inequality and solution shows the total weekly sales she must make to reach her goal?

    A. $(8)(15) + 0.50s \leq 200, s \leq 1600$

    B. $(8)(15) + 0.05s \geq 200, s \geq 1600$

    C. $(8)(15)(0.5)s \leq 200, s \leq 60$

    D. $(8)(15)(0.5)s \geq 200, s \geq 60$ 13. _____

14. Solve and graph the solution to the inequality: $-4z + 8 < -27 + z$.

    2 3 4 5 6 7 8 9 10   14. _____

15. The sum of an integer and the next greater integer is at most 13. Write an inequality to find the lesser integer. Then solve for the lesser integer.   15. _____