Name:_____ Class:_____ Date:_____

Unit 04 PC Form A

1. **Use pencil and paper to answer the question.**
   Write each of the following fractions in simplest form.

   a. $\frac{11}{88}$ _____ **b.** $\frac{25}{55}$ _____

   c. $\frac{25}{100}$ _____ **d.** $\frac{70}{100}$ _____

   ANSWER:

   a. $\frac{1}{8}$ **b.** $\frac{5}{11}$

   c. $\frac{1}{4}$ **d.** $\frac{7}{10}$

2. **Use pencil and paper to answer the question.**

   Complete the table below. Simplify all fractions.

	Fraction	Decimal	Percent
a.		0.62	
b.	$\frac{6}{25}$		
c.		0.94	
d.			30%

	Fraction	Decimal	Percent
e.		0.08	
f.	$\frac{3}{5}$		
g.			85%
h.	$1\frac{3}{5}$		

ANSWER:

	Fraction	Decimal	Percent
a.	$\frac{31}{50}$	0.62	62%
b.	$\frac{6}{25}$	0.24	24%
c.	$\frac{47}{50}$	0.94	94%
d.	$\frac{3}{10}$	0.3	30%

	Fraction	Decimal	Percent
e.	$\frac{2}{25}$	0.08	8%
f.	$\frac{3}{5}$	0.6	60%
g.	$\frac{17}{20}$	0.85	85%
h.	$1\frac{3}{5}$	1.6	160%

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3. **Use pencil and paper to answer the question.**
Compare using < or >.

a. $\frac{3}{5}$ _____ $\frac{1}{2}$

b. $1\frac{1}{4}$ _____ $1\frac{1}{5}$

c. $2\frac{1}{5}$ _____ $\frac{5}{2}$

d. $2\frac{1}{8}$ _____ 2.09

ANSWER: **a.** >
b. >
c. <
d. >

4. **Use pencil and paper to answer the question.**

When Collin began first grade, he was $43\frac{7}{8}$ inches tall. At the end of the year, he was $44\frac{3}{4}$ inches tall.
How much had Collin grown?

_____
(unit)

ANSWER: $\frac{7}{8}$ in.

5. **Use pencil and paper to answer the question.**
Carla uses a pencil to do her math work. She started the week with a new pencil, which measured 15.2 cm in length. At the end of 2 weeks, the pencil measured 11.3 cm in length. Find the difference between the 2 pencil lengths.
Express your answer as a mixed number. _____ cm

ANSWER: $3\frac{9}{10}$

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6. **Use pencil and paper to answer the question.**
Add. Write all answers greater than 1 as mixed numbers.
Write all fractions in simplest form.

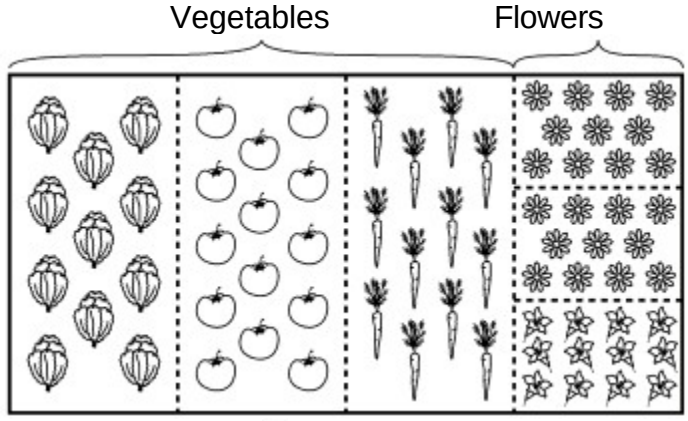
a. $2\frac{4}{9} + 2\frac{1}{6} =$ _____ **b.** $2\frac{1}{3} + 1\frac{3}{4} =$ _____

c. $2\frac{1}{6} + 2\frac{1}{4} + 1\frac{1}{6} =$ _____ **d.** $\frac{2}{3} + \frac{2}{9} =$ _____

ANSWER: **a.** $4\frac{11}{18}$ **b.** $4\frac{1}{12}$

c. $5\frac{7}{12}$ **d.** $\frac{8}{9}$

7. **Use pencil and paper to answer the question.**
Use the diagram to solve the problems below. Write your answers in simplest form.



Mr. Jackson plants $\frac{3}{4}$ of his garden with vegetables and $\frac{1}{4}$ of it with flowers. He plants $\frac{2}{3}$ of the flower section with daisies and the rest of the flower section with lilies.

a. What fraction of the entire garden is lilies? _____

b. Write a number model for the fraction of the entire garden that is daisies.

_____

c. Suppose Mr. Jackson's garden has an area of 1,904 ft^2. How many square feet are planted in vegetables? _____ ft^2

ANSWER: **a.** $\frac{1}{12}$

b. $\frac{2}{3} * \frac{1}{4} = \frac{1}{6}\frac{1}{3} * \frac{1}{4} = \frac{1}{12}$

c. 1,428

8. **Use pencil and paper to answer the question.**
Sixth graders were asked the following question: *If you could play only one of the following sports, which would you choose?*

Complete the table below.

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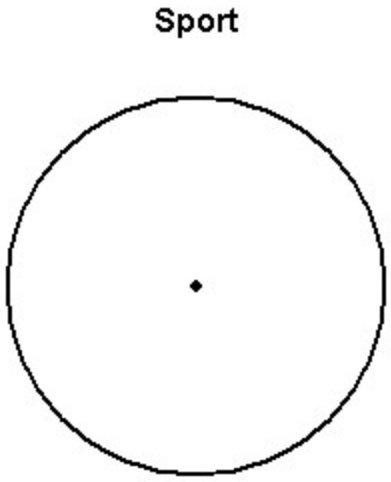
	Sport	Number of Students	Percent of Students
a.	Basketball	57	
b.	Volleyball		30%
c.	Soccer	114	
d.	Baseball/Softball		15%
e.	Swimming	38	
f.	**Total**	**380**	

Use the Percent Circle on the Geometry Template to make a circle graph of the data.



ANSWER:

	Sport	Number of Students	Percent of Students
a.	Basketball	57	15%
b.	Volleyball	114	30%
c.	Soccer	114	30%
d.	Baseball/Softball	57	15%
e.	Swimming	38	10%
f.	**Total**	**380**	100%

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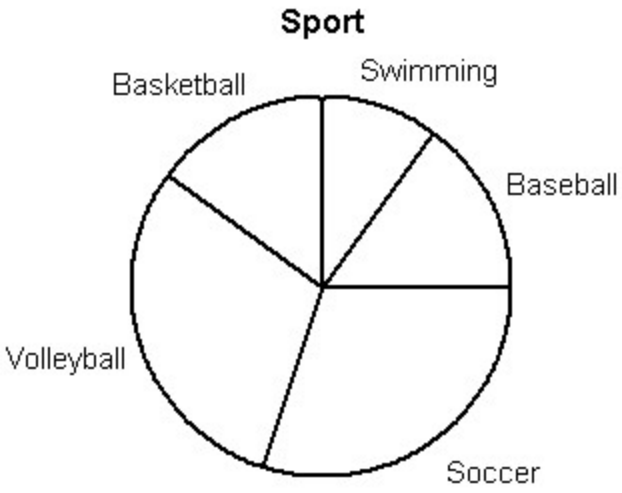
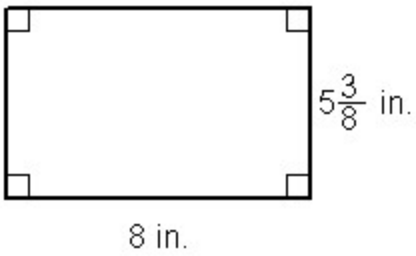


9. **Use pencil and paper to answer the question.**
Find the perimeter and area of the rectangle shown below.



Perimeter = _____ (unit) Area = _____ (unit)

ANSWER: Perimeter = $26\frac{3}{4}$ in.; Area = 43 $in.^2$

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10. **Use pencil and paper to answer the question.**
Evaluate each expression when $x = 5$.

a. $0.0094 * 10^x$ _____

b. $2^x + 5^5$ _____

c. $-(x) + -6$ _____

d. $x^0 + -6$ _____

ANSWER: **a.** 940
b. 3,157
c. –11
d. –5

11. **Use pencil and paper to answer the question.**
Estimate the quotient $931 \div 35$. Then divide.

Estimate _____ $35\overline{)931}$

$931 \div 35$ = _____

ANSWER: Estimates will vary.
$931 \div 35 = 26.6$

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12. **Use pencil and paper to answer the question.**

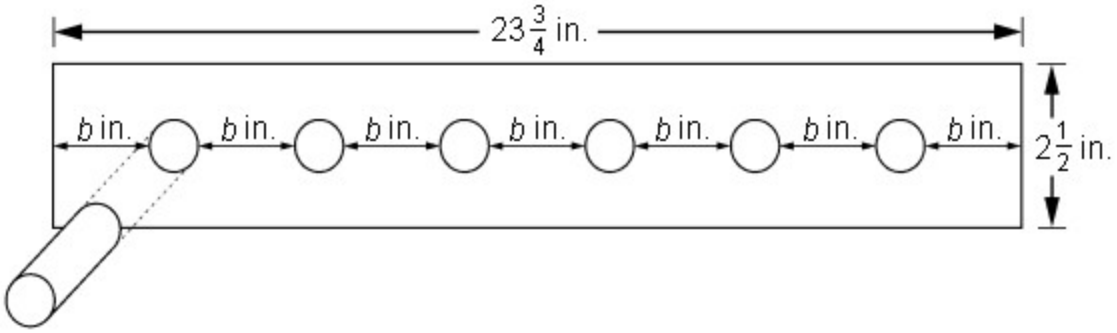
Making a Wooden Rack

Faith is designing a wall-mounted wooden rack for hanging necklaces and belts.

She has a strip of wood that is $23\frac{3}{4}$ inches long by $2\frac{1}{2}$ inches high.

She plans to drill 6 peg holes into this strip, each hole having a diameter of $\frac{3}{4}$ inch.

She wants to position the holes so the distance between any two pegs (*b*) is the same. The space between each end of the rack and the first hole will also be the same (*b*).
What is the maximum distance between any two pegs? _____ in.
Write an explanation of how you arrived at your answer. Describe each step in your solution clearly. Use the diagram below to help you.



_____

_____

_____

ANSWER: $2\frac{3}{4}$

Sample explanation: I subtracted the total length of the peg holes from the length of the rack by multiplying the diameter of the holes by 6 and subtracting that distance from the length of the rack. Then I divided by 7 to find the distance between each peg.