

Name:  
 Teacher:  
 Subject/Period:  
 Date:

**PreAP Test 4 Review Sheet**

**6.2D**

1.) Order from least to greatest.  $\frac{9}{4}$ , 13.7,  $\frac{3}{8}$ , 0.88

*more than 1/2*  
 $\frac{9}{4} \rightarrow 2\frac{1}{4}$   
*less than 1/2*  
 $\frac{3}{8} = 0.375$   
 0.88  
 13.7

$\frac{3}{8}, 0.88, \frac{9}{4}, 13.7$

**6.3D**

2.) The table below shows the temperatures of a town, in degrees Fahrenheit, at 6:00 A.M., 12:00 P.M., and 6:00 P.M. one winter day.

Time	Temperature (°F)
6:00 am	30
12:00 pm	10
6:00 pm	-10

What is the difference in temperature between 6:00 am and 6:00 pm?

40°

**6.3E**

3.) Lauren's mom bought 2.3 yards of ribbon that costs \$2.45 per yard. If she gave the cashier a \$20 bill, how much change did Lauren's mom get back?

		1	4	.	3	6
0	0	0	0		0	0
1	1	1	1		1	1
2	2	2	2		2	2
3	3	3	3		3	3
4	4	4	4		4	4
5	5	5	5		5	5
6	6	6	6		6	6
7	7	7	7		7	7
8	8	8	8		8	8
9	9	9	9		9	9

2.45 ← 2  
 2.3 ← 1  
 735  
 490x  
 -----  
 5.635 ← 3  
 ↓  
 5.64

20.00  
 5.64  
 -----  
 14.36

**6.4A**

4.) The table below represents how long it takes to complete each math problem on last week's math test.

Table Representation:

Minutes (x)	5	10	15	20
Completed Problems (y)	15	30	45	60

Write an equation that describes relationship represented in this table. (set it up as  $y =$ )

$$y = 3x$$

5.) When Bill was 1 year old, Sally was 5 years old. Create a table to show each person's ages for at least 3 other times. Write an equation to describe the relationship between Bill (x) and Sally (y) (set it up as  $y =$ )

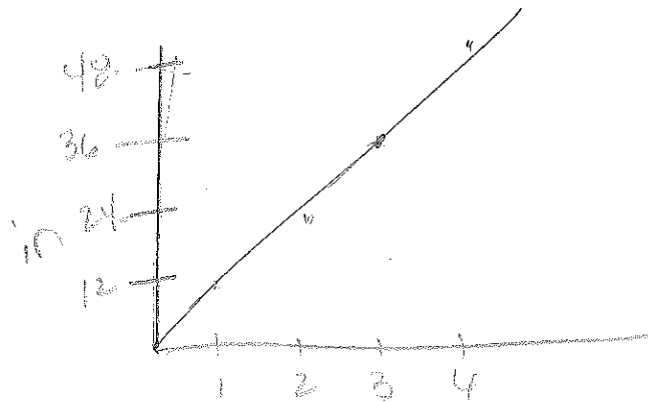
+4

B	1	2	3	4
S	5	6	7	8

$$S = B + 4$$
$$y = x + 4$$

6.) Create a table to show the relationship between feet and inches. Create a graph from your table. (6.4A)

ft	in
0	0
1	12
2	24
3	36
4	48



$$y = 12x$$

ft

**6.4B**

7.) Which item is the cheapest?

Item	# of Items	Cost
Tomatoes	5	\$1.65
Cucumbers	4	\$1.48
Peppers	3	\$1.32

$$\begin{array}{r} 0.33 \\ 5 \overline{) 1.65} \\ \underline{15} \phantom{0} \\ 15 \\ \underline{15} \\ 0 \end{array}$$

$$\begin{array}{r} 0.37 \\ 4 \overline{) 1.48} \\ \underline{12} \phantom{0} \\ 28 \\ \underline{28} \\ 0 \end{array}$$

$$\begin{array}{r} 0.44 \\ 3 \overline{) 1.32} \\ \underline{12} \phantom{0} \\ 12 \\ \underline{12} \\ 0 \end{array}$$

Tomatoes

8.) Sherry can run 8.5 miles in 68 minutes. Samantha can run 10.5 miles in 75 minutes. How can you tell who is the faster runner?

$$\begin{array}{r} 0.08 \\ 15 \overline{) 1.20} \\ \underline{120} \\ 0 \end{array}$$

$$\begin{array}{l} \text{min} \\ \text{mile} \end{array} \quad \begin{array}{l} \text{Sh} \\ 68 \\ 8.5 \end{array}$$

$$\begin{array}{l} \text{Sa} \\ 75 \\ 10.5 \end{array}$$

Sam - She takes less time per mile than Sherry

$$\begin{array}{r} 0.071 \\ 15 \overline{) 1.05} \\ \underline{105} \\ 0 \end{array}$$

Sam runs 1 mile in 7+ min

**6.4C**

Sherry runs 1 mile in 8 min

9.) The ratio of dogs to cats is 6 to 7. If there are 28 cats, how many dogs would you expect to have? **Make sure to set up a word ratio.**

$$\frac{d}{c} = \frac{6 \times 4}{7 \times 4} = \frac{x}{28}$$

dogs = 24

10.) Ryan Hall can run 6 miles in 30 minutes. At this rate, how many miles can Ryan run in 2 hours? **Make sure to set up a word ratio.**

$$\frac{\text{miles}}{\text{min}} = \frac{6 \times 4}{30 \times 4} = \frac{x}{120}$$

x = 24 miles

1 hour = 60 min  
2 hours = 120 min

11.) Which table has the same ratio as 3 parts white to 4 parts red?

A.)

White	3	6	9	12
Red	4	8	12	16

B.)

White	3	4	5	6
Red	4	5	6	7

w = 3  
r = 4

C.)

White	3	5	7	9
Red	4	6	8	10

~~D.)~~

White	4	8	12	16
Red	3	6	9	12

**6.4D**

12.) Mary bought the following fruits. Which fruit cost the least per ounce?

Fruit	Ounces	Cost
Apples	5	\$2.00
Oranges	4.5	\$2.25
Bananas	4	\$3.00

Handwritten calculations and notes:

- Next to Apples:  $\frac{2.00}{5} = 0.40$
- Next to Oranges:  $\frac{2.25}{4.5} = 0.50$
- Next to Bananas:  $\frac{3.00}{4} = 0.75$
- Handwritten:  $\frac{2.00}{5} \rightarrow 5 \overline{) 2.00}$
- Handwritten:  $4 \overline{) 3.00}$
- Handwritten:  $4.5 \overline{) 2.25}$
- Handwritten: "Apples" circled.

13.) Bill spent \$4.55 on 5 apples. What is the unit rate for his apples?

Handwritten calculation:  $5 \overline{) 4.55}$

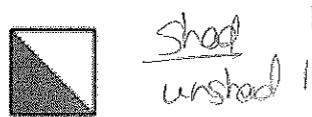
Handwritten answer:  $0.91 : 1$  circled.

14.) How is unit rate ALWAYS SHOWN - 100:1 or 1:100?

Handwritten answer: "Something to 1" circled.

**6.4E**

15.) Look at the square in the figure below.



Which of these squares does NOT have the same ratio of shaded to unshaded area as the square in the figure above?

A. ✓

B. ✓

C. ✓

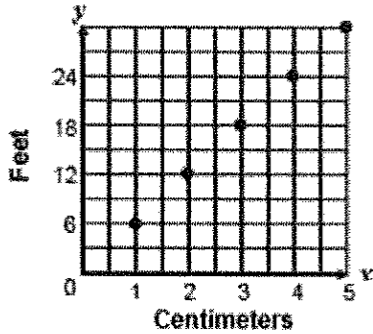
D. (D is circled)

16.) For every 16 games the football team won, they lost four. What is the ratio of games won to number of games played?

$$\frac{\text{won}}{\text{played}} = \frac{16}{20} = \frac{4}{5} = \frac{4}{5}$$

**6.5A**

17.) The graph shows the relationship between centimeters used in a scale drawing and actual length in feet.



Use the graph to predict the number of centimeters used in the drawing to represent 66 feet.

$$\begin{array}{l} \text{cm} \\ \text{ft} \end{array} \quad \frac{1 \times 11}{6 \times 11} = \frac{x}{66} \quad x = 11$$

18.) Use the table below to determine how large Nancy's puppy will be after 7 months.

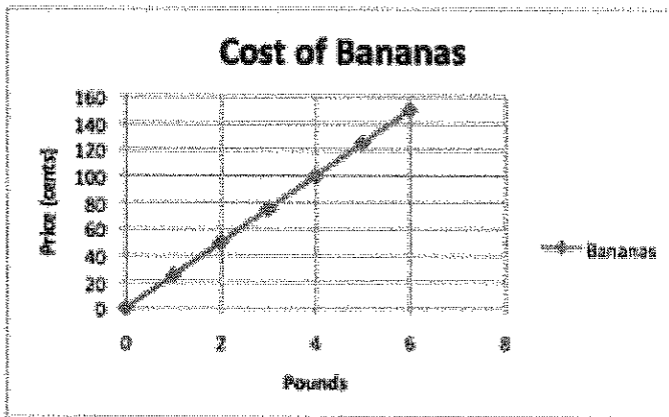
Nancy's Puppy

Month	Growth (lb)
1	4 lb
2	7 lb
3	10 lb
4	13 lb

+3

$$\begin{array}{r} 5 \\ 6 \\ 7 \end{array} \quad \begin{array}{r} 16 \\ 19 \\ \hline 22 \end{array}$$

19.) The graph below shows the cost of bananas per pound.



If it is \$2.00 for eight pounds of bananas, how much would 2 pounds of bananas cost?

cost  
bananas

$$\frac{2.00}{8} = \frac{x}{2}$$

$$x = 0.50$$

$$4 \overline{) 2.00} = 0.50$$

20.) The table below shows the relationship between hamburgers & hot dogs sold at a ball game. Is the relationship proportional? Why or why not?

Hamburgers	Hot Dogs
5	6
10	12
15	20
20	25

$$\frac{\text{ham}}{\text{hd}} = \frac{5}{6} \times \frac{2}{2} = \frac{10}{12}$$

$$\frac{5}{6} \times \frac{3}{3} = \frac{15}{18}$$

$$\frac{5}{6} \times \frac{4}{4} = \frac{20}{24}$$

### 7.3A

21.)  $4\frac{3}{4} + (-7\frac{1}{2}) =$

$$-7\frac{1}{2} \times \frac{2}{2} = -7\frac{2}{4} = -6\frac{6}{4}$$

$$+ 4\frac{3}{4} \rightarrow 4\frac{3}{4}$$

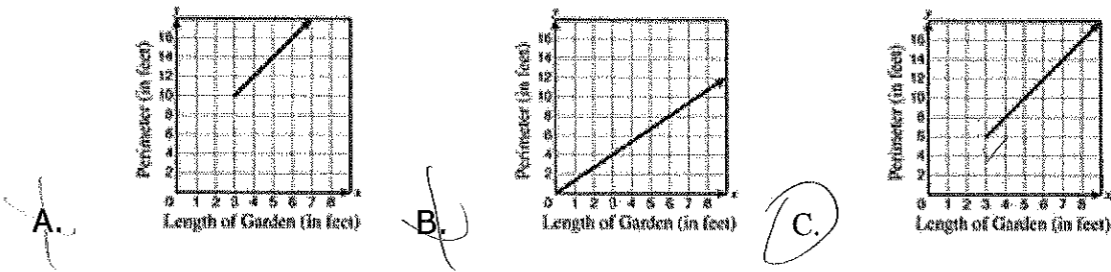
$$-2\frac{3}{4}$$

**7.4A**

22.) The table below shows the relationship between the length of a side of a garden and its perimeter.

Length	Perimeter
3 ft.	6 ft.
4 ft.	8 ft.
6 ft.	12 ft.

Which graph best represents the data in the table?



23.) Which table illustrates a constant rate of change?

A.

People	Cars
1	+1
2	+1
3	+1
4	+1

B.

People	Cars
1	$\times 2$
2	$\times 2$
3	$\times 2$
4	$\times 2$

C.

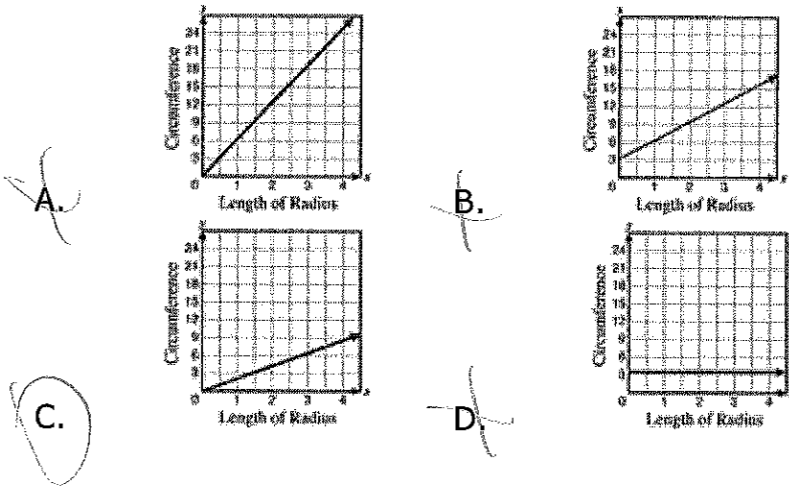
People	Cars
8	$\div 2$
6	$\div 2$
4	$\div 2$
2	$\div 2$

B + C

24.) Gregory is creating circular stepping stones for his gardenpath. As the diameter  $d$ , of the circles increase, the circumference  $c$ , increases as shown on the table below.

Diameter ( $d$ )	Circumference ( $c$ )
2 $\times 3.14$	6.28
4 $\times 3.14$	12.56
6 $\times 3.14$	18.84
8 $\times 3.14$	25.12

Which of the following graphs **BEST** represents the relationship between the radius of a circle and its circumference?



**7.4B**

25.) Angela uses a long distance phone card to call her best friend in Amarillo, TX. The company billed her \$11.25 for the call. If Angela talked for  $\frac{1}{4}$  hours, how much did each minute cost?

1 hour = 60 min  
 $\frac{1}{4}$  hr =  $\frac{15 \text{ min}}{25 \text{ min}}$

Cost  
 min  $\frac{11.25 \times 100}{25} = 45$

00.15  
 25  $\overline{) 11.25}$   
 25  $\downarrow$   
 375  
 375  
 —

$\$0.15 / \text{min}$