

Study Session for Last Test of the Year

① Evaluate using $a = 10$ $b = -5$ $c = 2$

a) abc
 $(10)(-5)(2)$
 $\boxed{-100}$

b) $\frac{ab}{2c}$
 $\frac{(10)(-5)}{2(2)} = \frac{-50}{4}$
 $\boxed{-12.5}$

c) $\frac{(bc)^2}{2a}$
 $\frac{[(-5)(2)]^2 (-10)^2}{2(10)} = \frac{100}{20}$
 $\boxed{5}$

② Measures of Central Tendency:

Below are the results of a survey of how many pets students have.

Number of Pets	Frequency (Number of students with that number)	
0	3	0
1	5	5
2	5	10
3	4	12
4	2	8
5	2	10
6	0	0
7	3	21
8	0	0
9	1	9

25 people

75 pets

Mean $\boxed{3}$ Median $\boxed{2}$ Mode $\boxed{1, 2}$ Range $\boxed{9}$

If one student joined the class and the new mean was 3, how many pets ~~the~~ did the new student have? $\boxed{3 \text{ pets}} \left[\frac{78}{26} = 3 \right]$

③ Common Measurements:

a) How many inches in 9 feet?

108"

b) How many feet in 100 miles?

528000'

c) How many ounces in 6 tons?

192,000 $12,000 \times 16$
oz = 192,000

d) How many quarts in 9 gallons?

36 qts

e) How many cups in 48 fluid ounces?

6 cups

f) How many hours in 3 days?

72 hours

g) In what century is 789?

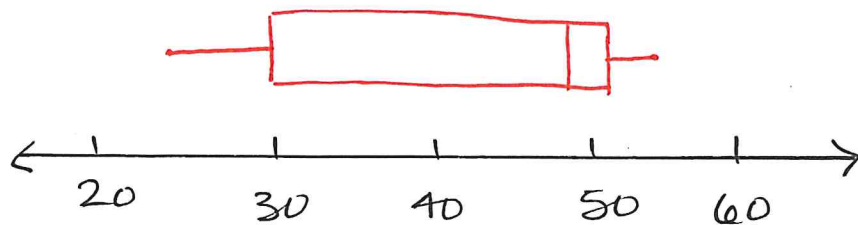
8th century

h) When does water boil in Fahrenheit?

212°F

④ Use the following data set to make a box plot:

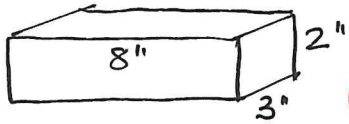
25, 28, ³⁰32, 40, 49, 49, ⁵¹50, 52, 53



Median 49 Lower Quartile 30 Upper Quartile 51

IQR 21

⑤ Find the Volume & Surface Area of the Prism below.



$$V = (8)(2)(3) = 48 \text{ cubic } "$$

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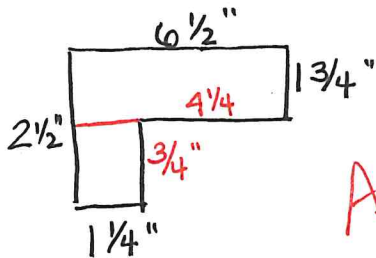
$$SA = (2)8 \cdot 3 = 48$$

$$(2)2 \cdot 3 = 12$$

$$+ (2)8 \cdot 2 = 32$$

$$92 \text{ sq } "$$

⑥ Find the area and perimeter of the shape below:



$$A = (6 \frac{1}{2})(1 \frac{3}{4}) = \frac{13}{2} \cdot \frac{7}{4} = \frac{91}{8} = 11 \frac{3}{8}$$

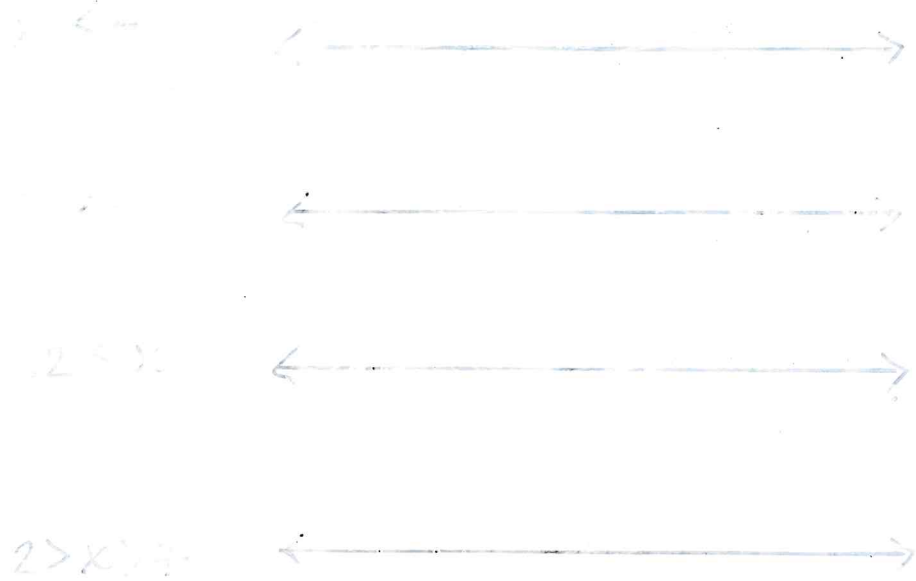
$$(1 \frac{1}{4})(\frac{3}{4}) = \frac{5}{4} \cdot \frac{3}{4} = \frac{15}{16}$$

$$11 \frac{3}{8} \left[\frac{2}{2} \right] = \frac{6}{16}$$

$$+ \frac{15}{16} \quad \frac{15}{16}$$

$$11 \frac{21}{16} = 12 \frac{5}{16}$$

$$P = 17 "$$



$$P = 6 \frac{1}{2} \cdot \frac{2}{2} = \frac{2}{4}$$

$$1 \frac{3}{4} \quad \frac{3}{4}$$

$$4 \frac{1}{4} \quad \frac{1}{4}$$

$$\frac{3}{4} \quad \frac{3}{4}$$

$$1 \frac{1}{4} \quad \frac{1}{4}$$

$$+ 2 \frac{1}{2} \cdot \frac{2}{2} = \frac{2}{4}$$

$$14 \frac{12}{4} =$$

$$17$$