GR10 ESSENTIALS
INVENTORY

Name: _____
Date: _____

This is a quick mix of some prior grades to see what we may need to tweak up in Gr10 Essentials. Do your best (by yourself). It will not be worth marks.

PART 1

No calculator allowed in this part.
Show work for best marks.
Your two-page reference notes are allowed.

1. Perform the following without a calculator. Give answers to nearest one-thousandths.

a. 532×16

b. 67.08×1.6

c. $58\overline{)359.6}$

d. $3.3\overline{)8.91}$

e. $134.57 + 237.38$

f. $823.6 - 245.72$

2. Perform the following fraction operations without a calculator: [* means multiply]

a. $\frac{1}{3} * \frac{3}{7} =$

b. $5\frac{1}{4} * 1\frac{2}{5} =$

c. $\frac{3}{5} \div \frac{1}{5}$

d. $\frac{4}{9} \div 8$

e. $4\frac{2}{3} \div 2\frac{1}{2}$

f. $4 * 1\frac{2}{5}$

Proceed to Part 2; you may use a calculator in Part 2

PART 2
UPGRADE PRACTICE EXAM
(PRISM GREEN)

Name: _____
Date: _____

Calculators ***are*** allowed in this part.
Show work for best marks.
Your two-page reference notes are allowed.

1. Convert the following metric units to those indicated:

a. 12 km = _____m

b. 7.6 kg = _____g

c. 354 mm = _____m

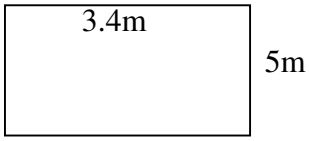
d. 4.5 cm = _____mm

e. 4.5 litres = _____ ml

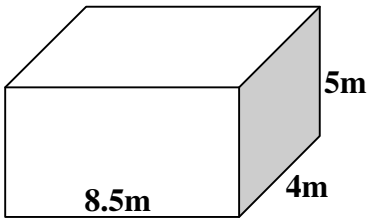
f. 32.7 g = ____ mg

2. If John buys a six-pack of coke and each can has a volume of **355 ml**, how many **litres** of coke did John get?

3. Calculate the **area** of the following figure:



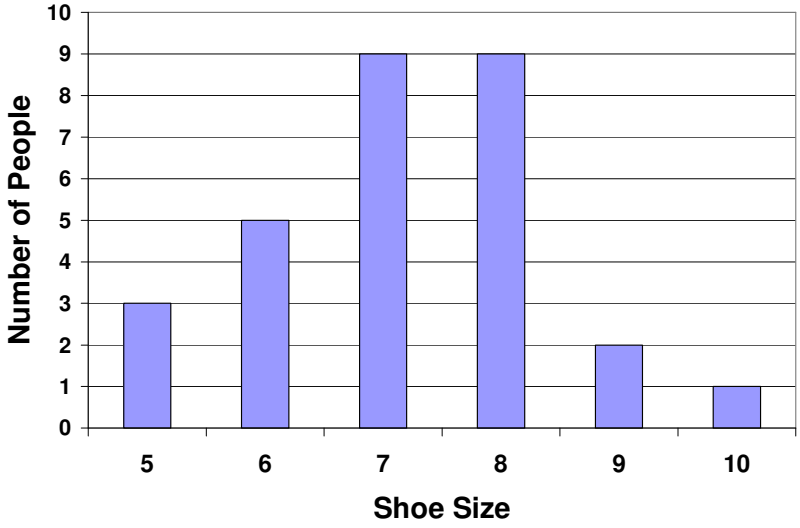
4. Calculate the volume of the rectangular prism:



5. Complete the following chart to convert between fractions, decimals and percents (the first row is done for you):

Fraction	Decimal	Percent
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$		
	0.20	
		70%
		95%
$\frac{3}{8}$		
$\frac{19}{20}$		

6. Here is a bar graph showing the shoe sizes of several surveyed people:



a. how many people were surveyed?

b. how many people have size 8 or more?

c. how many people have size 6?

d. what percentage of those surveyed have a size 7?

7. Calculate the ***mean, median, mode, and range*** of the following sets of data:

a. **2, 2, 4, 6, 7, 9, 12**

Mean: _____

Median: _____

Mode: _____

Range: _____

b. **10, 15, 16, 17, 17, 21**

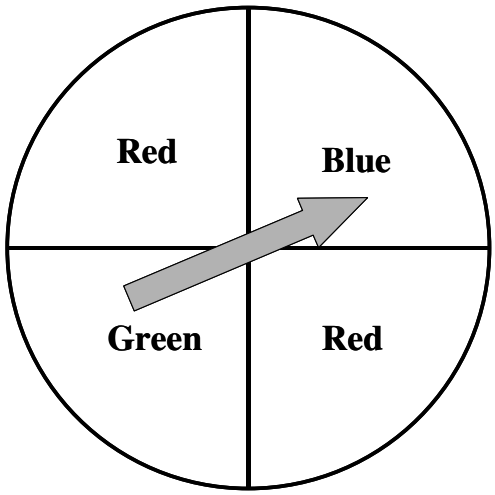
Mean: _____

Median: _____

Mode: _____

Range: _____

8. Calculate the probability given the spinner; in percents:



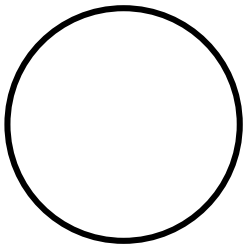
a. probability of spinning a red:

b. probability of spinning a green:

c. probability of spinning an orange:

d. probability of not spinning a blue:

9. Find the **circumference** of the circle to the nearest tenth. The diameter is **12 cm**.



Not to scale

Circumference = _____

Hint: $C = \pi d$ or $2\pi r$

ALGEBRA

10. **Evaluate** the following (the first one is done for you): (Notice '*' means multiply of course). *Hint*: use the correct order of operations: BEDMAS

a. $2 * (6 * 2) =$ ***24***

b. $(3 + 7) * 10 =$

c. $3 + 6 * 7 + 2 =$

d. $4 + 5 * 7 =$

e. $(3 * 8) – (4 * 5)$

f. $4 * 3 – 2 * 2$

f. $4 + 4 + 4 * 4 + 4 – 4 =$

g. A skill testing question for a contest in a chocolate bar wrapper.
Calculate the following: $8 + 3 * 4 \div 2 - 3$ is:

11. Perform the indicated operations with integers.

a. $8 – 6 =$

b. $3 – 9 =$

c. $– 2 – 4 =$

d. $– 8 – (–3) =$

e. $–10 – (–2) =$

f. $5 + 6 =$

12. Evaluate the following powers and exponents:

a. $7^2 =$ b. $8^3 =$ c. $2^8 =$

13. Solve for the unknown:

a. $3p = 24$ b. $x - 5 = 17$

c. $p + 9 = 20$ d. $\frac{t}{4} = 15$

e. $\frac{x}{2} = 44$ f. $z - 12 = 134$

14. Solve the following proportions:

a. $\frac{5}{8} = \frac{x}{40}$

b. $\frac{15}{8} = \frac{x}{14}$

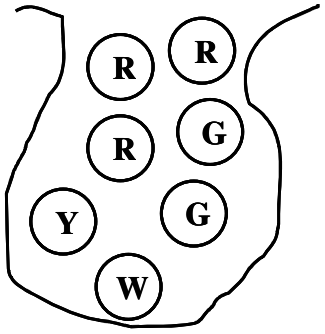
c. $\frac{5}{8} = \frac{20}{x}$

d. $\frac{4}{9} = \frac{22}{x}$

15. **Squares and Square Roots**. Complete the table below.

n	**2**	**3**		**10**	**12**			**25**
n^2	**4**		**9**			**81**	**169**	

16. **Probability**. A bag contains three red, two green, a yellow, and a white marble. With one draw, what is the probability, in percent, of drawing:



a. a red marble _____%;

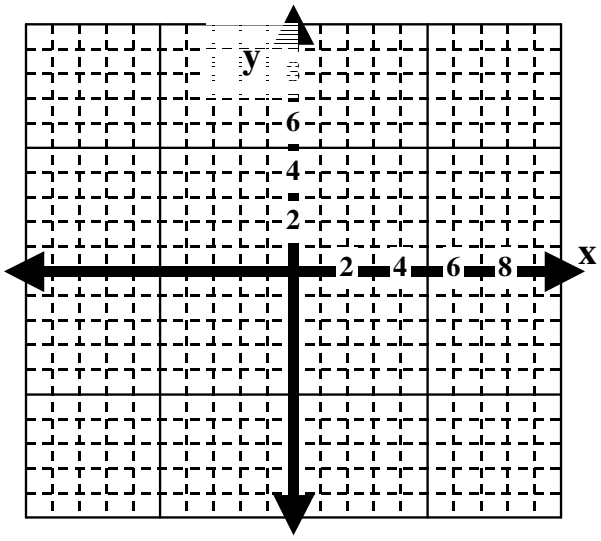
b. a white marble _____%;

c. not a yellow marble _____%;

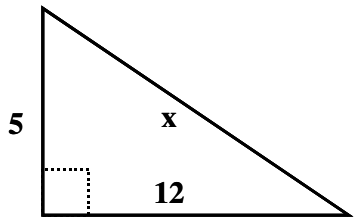
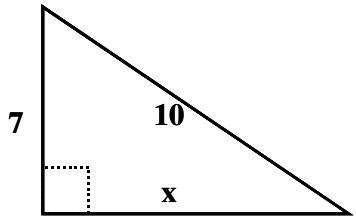
d. a yellow or a green marble _____%

17. **Functions and Lines**. Complete the function table and graph the line.

y = 2 x – 6	
x	**y**
–2	
0	
2	
4	



18. Find the value of the indicated unknown length, ***x***, for the given right triangles. (Hint: Pythagoras. $\mathbf{c^2 = a^2 + b^2}$)

a. $x =$ _____	
b. $x \cong$ _____	

19. Geometry of lines.

if ∠AZB = 110°:

(1) the measure of **∠AZD** is: _____°

(2) the measure of **∠CZD** is: _____°

(3) is **∠CZD** obtuse, right, or acute? (Circle one)