المدرسة
الوطنية الأرثوذكسية
الشميساني

The National
Orthodox School
Shmaisani

Revision Sheet | Lower Secondary
Stage (6-8)

1st Semester | 2023-2024

Subject: Math   **Chapter:** 1, 6, 9 and 12
Objectives:
• To review the material covered in chapter 1, 6, 9 and 12.

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1. Find LCM and HCF of the numbers below:
   a) 16, 18 and 30

   b) 12, 63 and 90

   c) 560 and 240

d) 480 and 700

2. Solve:

a) $\sqrt{\dfrac{4}{100}}=$

b) $\sqrt{\dfrac{16}{81}}=$

c) $\sqrt{\dfrac{9}{25}}=$

d) $\sqrt[3]{\dfrac{8}{125}}=$

e) $\sqrt[3]{\dfrac{64}{1000}}=$

f) $\sqrt{0.25}=$

g) $\sqrt{0.64}=$

h) $\sqrt{1.21}=$

i) $\sqrt{0.04}=$

j) $\sqrt[3]{0.008}=$

k) $\sqrt[3]{0.064}=$

3. A square has a side length of 0.3 m, find it's area.

4. A square has an area of 0.09 m², what is the side length?

5. The side length of a cube is 0.4 cm, what is the volume?

6. A cube has a volume of 0.125 m³, what is the side length?

7. Complete this table of equivalent fractions and decimals, write each fraction in its simplest form:

Fraction	Decimal
$\dfrac{3}{7}$	
	$0.\dot{6}$
$1\dfrac{9}{20}$	
	$0.\dot{6}\dot{3}$
	$0.0\dot{8}\dot{1}$

8. Workout:

$23 \times 0.01 =$	$4.5 \times 0.01 =$	$1.64 \times 0.1 =$
$0.78 \times 0.1 =$	$1.5 \times 0.4 =$	$8.9 \times 0.12 =$
$1.25 \times 0.54 =$	$56 \div 0.1 =$	$4.6 \div 0.01 =$
$8.26 \div 0.01 =$	$84 \div 0.04 =$	$2.4 \div 0.12 =$
$8.1 \div 0.09 =$	$0.25 \div 0.005 =$	$0.0642 \div 0.02 =$

9. Workout:
   a. Increase $8.2 by 40%.

   b. Decrease 50.5 kg by 25%.

   c. A 35% markup on a computer worth $220.

   d. A 6% sale on a shirt worth $42.

10. Workout:

$10 \times \frac{2}{5} =$	$18 \div \frac{6}{7} =$
$\frac{9}{14} \times \frac{2}{3} =$	$-12 \times 2\frac{3}{4} =$
$7 \div -1\frac{2}{5} =$	$\frac{18}{35} \div \frac{3}{5} =$

11. Answer the questions below:

    a. Mickey has read three-fifth of his 75 pages book. How many more pages does he have left to finish his book?

    b. Jerry bought $3\frac{5}{7}$ Kg of cheese and used $1\frac{1}{3}$ Kg. How much cheese is left?

    c. Tia bought 2.35 m cloth at the cost of $4.5 per meter. How much did she pay in total?

    d. In a high school contest, Ross jumped $1\frac{4}{7}$ m and Joy jumped $3\frac{2}{6}$ m. How much higher did Joy jump than Ross?

e. Bunny bought $2\frac{2}{5}$kg of strawberry, $3\frac{2}{3}$kg of blackberry and the rest are blueberry. If she bought 8 kg of fruits in total, how much blueberry did she buy?

f. A pen is priced $1.45, what is the total cost of buying 12 pens?

g. The area of a rectangle is 5.42 cm². If the length is 0.4 cm, what is the width?

h. I have 16 JDs, how many friends can I give if I give each person $1\frac{3}{5}$ JDs?

i. Kitty's mother bought $5\frac{3}{4}$ kg of cookies and her father bought $1\frac{9}{20}$ kg of cookies. What is the total weight of cookies that Kitty has?

12. Find the value of the missing variable:

$2\frac{4}{18} + 3\frac{a}{9} = 5\frac{2}{3}$	$4\frac{b}{4} - 2\frac{7}{12} = 1\frac{2}{3}$

13. Workout:

$(\frac{3}{4} - \frac{9}{24}) \times (\frac{2}{3} + \frac{5}{6} + \frac{7}{18}) =$	$\sqrt{100} + (7 - 10)^3 \div 9 - 12 =$

14. Round:

    a. 0.0123 to 2 s.f _____

    b. 25460 to 1 s.f _____

    c. 98761 to 3 s.f _____

    d. 1.70826 to 4 s.f _____

    e. 303457 to 4s.f _____

    f. 0.000749 to 2 s.f _____

15. Simplify leaving your answer in index notation:

   a. $5^2 \times 5^4 \times 5 =$

   b. $a^2 \times a^4 =$

   c. $7^{10} \div 7^4 =$

   d. $b^8 \div b^6 =$

   e. $8a^7 \div 4a^3 =$

   f. $5c^2 \times 3c^5 =$

   g. $\dfrac{6^{15}}{6^{10}} =$

   h. $\left(\dfrac{1}{2}\right)^0 =$

16. Use a ratio to compare these quantities:

   a. $1.5\ m^3; 20000\ cm^3$

   b. $4\ cm^2; 240\ mm^2$

c. $0.36 \ m^3 ; 81000 \ cm^3$

d. $4.8 \ km^2 ; 960000 \ m^2$

e. $2 \ weeks ; 20 \ days$

f. 3 hours ; 500 minutes

g. 6: four dozen

h. 3.5 t: 5500 kg

i. 4 litres: 6400 ml

17. Share among A, B and C:
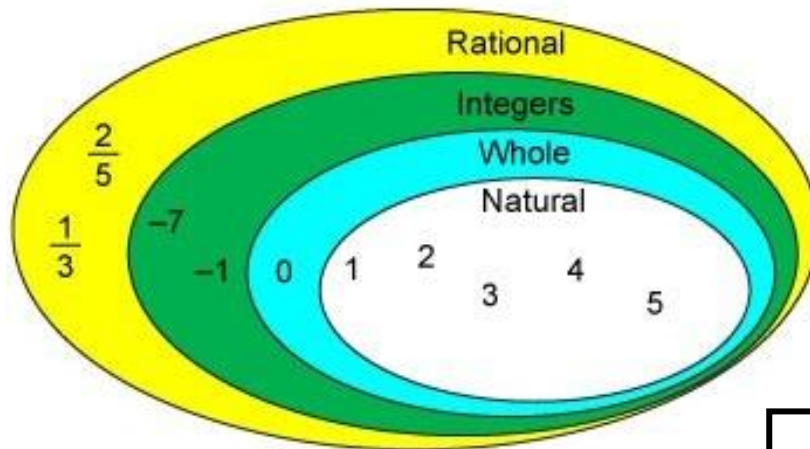   a. 60 chocolates in the ratio 3:2: 7

    b. $420 in the ratio 1:2:4

c. 2.7 kg in the ratio 1:3:6

d. $34.20 in the ratio 4:1:7

18. True or false:

a. 3.25 is an integer. (_____)

b. −5 is a whole number. (_____)

c. $\frac{2}{3}$ is a rational number. (_____)

d. 6 is a natural number. (_____)

e. −12 is an integer. (_____)

Good luck studying for your final exam!