

# Jeddah Knowledge International School



## MATHEMATICS REVISION PACK 2014-2015 QUARTER 3 GRADE 7

*Name:* \_\_\_\_\_

*Section:* \_\_\_\_\_

## A ] PERCENTAGES

1. WRITE THE FOLLOWING AS FRACTIONS WITH A DENOMINATOR OF 100 AND THEN CONVERT TO A PERCENTAGE

	FRACTION	PERCENTAGE
a) 3		
b) $\frac{7}{10}$		
c) 1.8		
d) $3\frac{3}{4}$		

2. CONVERT THE FOLLOWING INTO COMMON FRACTIONS (SIMPLEST FORM) AND THEN TO A DECIMAL

	COMMON FRACTION	DECIMAL
a) 15%		
b) 135%		
c) $33\frac{1}{2}\%$		

3. EXPRESS THE FIRST QUANTITY AS A PERCENTAGE OF THE SECOND

a) 15km, 30km	
b) 2L, 500ML	

c) 6months, 2years	
d) 45sec, 2minutes	

- e) John bought a house and was valued at \$250 000. After 3 years the value of the house is \$500 000. Calculate the new value as a percentage of the old value.

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**4. FINDING PERCENTAGES OF QUANTITIES**

- a) 30% of \$36

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- b) 30% of 4 hours ( in minutes)

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- c)  $7\frac{1}{2}\%$  of 12 hour (in minutes)

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- d) 3.8% of 12 m ( in cm)

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- e) Ryan scored 85% in his term mark. If he wrote 6 tests out of 20 marks each. He scored the following in his first five tests: 16, 17, 16, 19 and 18. Calculate what he scored in the last test.

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5. **PERCENTAGE INCREASE OR DECREASE**

a) Increase \$500 by 15%

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b) decrease 96kg by 6%

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c) Decrease 1200 SAR 12.5%

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d) increase 150 by  $5\frac{1}{2}\%$

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e) Pam earned 250 riyals per week. If she was given a  $7\frac{1}{2}\%$  increase. Calculate her new weekly salary.

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6) **ORIGINAL AMOUNTS**

a) Sarah bought a house two years ago. Her house increased in value by 15% and is now valued at \$350 000. Calculate what she initially bought the house for. (answer to 2 decimal places).

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b) Jill bought a jacket at a sale for 450 riyals. If the priced was reduces by 25%. What was the original price of the jacket?

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**B) RATIO AND PROPORTIONS**

**1. EXPRESSING AS RATIOS AND WRITING THEM AS A FRACTION OF THE TOTAL**

	RATIO	FRACTION
a) 7 is to 5		
b) 0.1 is to 0.2		
c) 60g is to 1.2 kg		
d) 6mths is to 2 years		
e) 1.5 is to 1		

**2. EQUAL RATIOS**

**2.1] SIMPLIFY THE FOLLOWING**

a) 20 : 50	
b) $\frac{1}{3} : 2$	
c) 0.03 : 0.15	



4.1) There are 50 marbles in a bag which divided between Paul and John in the ratio 2: 3.

a) What fraction will Paul receive?

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b) How many marbles will John receive?

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c) How many marbles did Paul receive?

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4.2 If a concentrated juice to water is to be mixed in the ratio 1: 5. How many litres of juice would I get if I had 1.5 litres of concentrated juice?

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**5. SCALE DIAGRAMS**

**5.1 WRITE THE FOLLOWING SCALES AS RATIOS**

a) 1cm represents 2km

b) 1mm represents 4 m

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5.2 IF THE SCALE 1: 50. FIND THE LENGTH DRAWN TO REPRESENT AN ACTUAL LENGTH OF:

a) 30m

b) 350cm

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**C1 ALGEBRA : EXPRESSIONS AND EVALUATIONS**

**1. CONCEPTS IN ALGEBRA**

Study the example below and answer the questions that follow:

$$3x - 7 + y$$

a) Is the above example an Equation? Give a reason for your answer.

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b) State the constant term in the above example.

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c) State the coefficient of  $y$ .

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d) How many terms are found in the example?

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**2. SIMPLIFYING EXPRESSIONS**

**SIMPLIFY THE FOLLOWING**



a) $2x + x$	
b) $a + a + 2a + c$	
c) $8d - 3d$	
d) $x + x - 2$	
e) $-b - 5b + b$	
f) $3x + 2x - 5$	
g) $a + 2a + 3b - 4b$	

### **3. ALGEBRAIC PRODUCT**

#### **3.1 SIMPLIFY USING PRODUCT NOTATION**

a) $7 \times d$	
b) $p \times 2q \times 3$	
c) $b - a \times 3$	
d) $(2a + c) \times 5$	

#### **3.2 WRITE IN EXPANDED FORM**

a) $a^3$	
b) $3a^2$	
c) $(4a)^3$	
d) $a^2 + 2c^3$	

### 3.3 SIMPLIFY THE FOLLOWING

a) $3 \times d \times d$	
b) $4 \times a \times a \times a \times b \times b$	
c) $2 \times (a + a + a + a) \times a$	
d) $3y \times 2y$	
e) $-3a \times -4a$	
f) $-2a^2 \times 5a$	