# Grade 7, Term 1 Revision Sheets

## Chapter 1: "Ratios and Proportional Reasoning"

### Lesson 1: Rates

**Find each unit rate. Round to the nearest hundredth if necessary.**

**a.** AED 12.49 for 4 packages

**b.** 2,560 gallons in 30 days

**c.** 44 students for 2 classes

**d.** 15.6°F in 14 minutes

**e.** 175 Calories in 12 ounces

**f.** 152.5 miles in 5.5 hours

**g.** 949 vehicles on 9 acres

**h.** AED 920 for 40 hours

**i.** 13 apples for 2 pies

**j.** 51 gallons in 14 minutes

**K.** AED 8.43 for 3 pounds

**L.** 357 miles in 6.3 hours

**Problem solving: -**

- A machinist can produce 114 parts in 6 minutes. At this rate, how many parts can the machinist produce in 15 minutes?

- A recipe that makes 8 jumbo blueberry muffins calls for $1\frac{1}{2}$ teaspoons of baking powder. How much baking powder is needed to make 3 dozen jumbo muffins?

**Estimate the unit rate for each item. Justify your answers.**

**a.** AED 299 for 4 tires

**b.** 3 yards of fabric for AED 13.47

## Lesson 2: Complex Fractions and Unit Rates

**Simplify.**

**1.** $\frac{2}{\frac{1}{3}}$

**2.** $\frac{\frac{1}{4}}{\frac{6}{8}}$

**3.** $\frac{6}{\frac{1}{5}}$

**4.** $\frac{\frac{8}{9}}{8}$

**5.** $\frac{\frac{4}{11}}{8}$

**6.** $\frac{\frac{4}{5}}{\frac{2}{15}}$

**7.** $\frac{\frac{9}{10}}{6}$

**8.** $\frac{20}{\frac{8}{15}}$

**9.** $\frac{\frac{6}{7}}{\frac{9}{14}}$

**10.** $\frac{\frac{3}{8}}{\frac{7}{12}}$

**Problem solving: -**

- Saleh can jog $2\frac{3}{7}$ miles in $\frac{6}{11}$ hour. Find his average speed in miles per hour.

- A truck driver drove 160 miles in $1\frac{1}{4}$ hours. What is the speed of the truck in miles per hour?

- Sheikha reads $7\frac{1}{2}$ pages of a book in 12 minutes. What is her average reading rate in pages per minute?

**Write each percent as a fraction in simplest form.**

**a.** $40\frac{1}{2}\%$

**b.** $30\frac{1}{4}\%$

b. $75\frac{1}{3}\%$

## Lesson 3: Convert Unit Rates

Complete. Round to the nearest tenth if necessary.

**a.** 660 ft/min = _____ ft/s

**b.** 64 mi/h ≈ _____ft/s

**c.** 32 gal/min = _____ qt/h

**d.** 815 gal/h ≈ _____qt/sec

**e.** 0.5 L/s = _____ mL/h

**f.** 6,000 lb/day = _____T/wk

**g.** 3.4 mi/h = _____ft/sec

**h.** 2 lb/wk ≈ _____oz/day

**i.** 5.6 lb/gal = _____ oz/gal

**j.** 44 mi/h ≈ _____ yd/min

**Problem Solving:**

- Khalid jogs at a rate of 7.5 miles per hour. How many miles per minute does Khalid jog?

- Alonzo fills buckets at a rate of 6 gallons per minute. What is the rate in pints per hour?

## Lesson 4: Proportional and Non-Proportional Relationships

For Exercises 1–3, use the table of values. Write the ratios in the table to show the relationship between each set of values.

**1.**

| **Number of Hours** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Amount Earned (AED)** | 15 | 30 | 45 | 60 |
| **Ratios** | | | | |

**2.**

| **Number of Packages** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Cost (AED)** | 11 | 20 | 29 | 38 |
| **Ratios** | | | | |

**3.**

| **Number of Classrooms** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Students** | 24 | 48 | 72 | 92 |
| **Ratios** | | | | |

For Exercises 4–8 use the table of values. Write *proportional* or *non-proportional.*

**4.**

| **Number of Hours** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Amount Earned (AED)** | 0.99 | 1.98 | 2.97 | 3.96 |

**5.**

| **Number of Hours** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Amount Earned (AED)** | 17.25 | 35.50 | 50.75 | 70 |

**6.**

| **Number of Hours** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Number of Pages Read in Book** | 37 | 73 | 109 | 145 |

**7.**

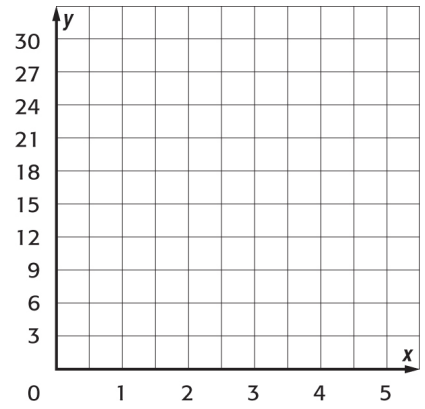
| **Number of Lunches** | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **Total Cost (AED)** | 2.75 | 5.50 | 8.25 | 11 |

## Lesson 5: Graph Proportional Relationships

Determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane.

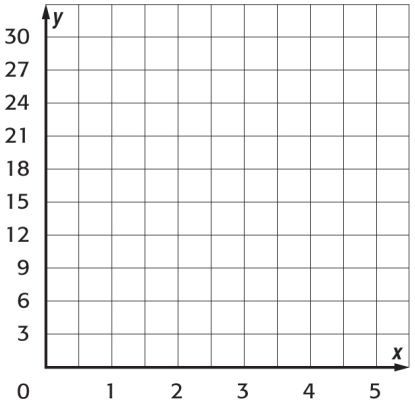
**A.**

| Gallons of Gas Used Per Hour | |
|---|---|
| **Number of Hours** | **Gallons of Gas** |
| 3 | 15 |
| 4 | 20 |
| 5 | 25 |



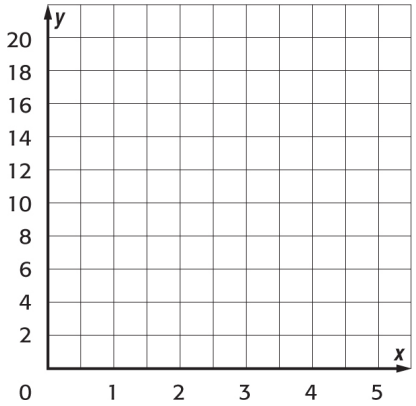

**B.**

| Volume of a Cube | |
|---|---|
| **Side Length (ft)** | **Volume ($ft^3$)** |
| 1 | 1 |
| 2 | 8 |
| 3 | 27 |




**C.**

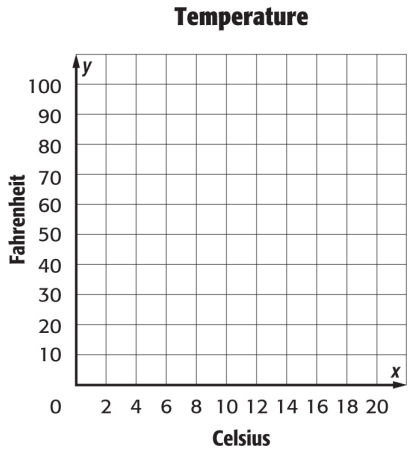
| DVD Rental | |
|---|---|
| **Number of DVDs** | **Cost (AED)** |
| 1 | 7 |
| 2 | 9 |
| 3 | 11 |



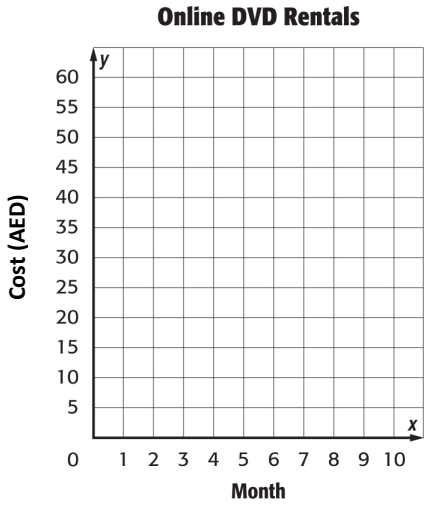
Determine whether the relationship between the two quantities shown in each table are proportional by graphing on the coordinate plane. Explain your reasoning.

**A.**

| Temperature (Degrees) | |
|---|---|
| **Celsius** | **Fahrenheit** |
| 0 | 32 |
| 5 | 41 |
| 10 | 50 |
| 15 | 59 |
| 20 | 68 |

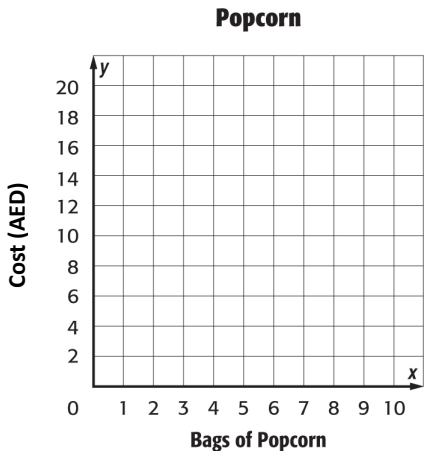



**B.** An online DVD rental company charges AED 15 a month for unlimited rentals. Determine whether the total paid after each month is proportional to number of months by graphing on the coordinate plane. Explain your reasoning.




**C.**

| Popcorn | |
|---|---|
| **Bags of Popcorn** | **Cost (AED)** |
| 0 | 0 |
| 1 | 4 |
| 2 | 8 |
| 3 | 12 |
| 4 | 16 |



## Lesson 6: Solve Proportional Relationships

**Solve each proportion.**

**a.** $\frac{11}{10} = \frac{n}{14}$

**b.** $\frac{18}{x} = \frac{6}{10}$

**c.** $\frac{b}{5} = \frac{8}{16}$

**d.** $\frac{t}{6} = \frac{30}{36}$

**f.** $\frac{0.45}{4.2} = \frac{p}{14}$

**g.** $\frac{2.5}{35} = \frac{2}{d}$

**h.** $\frac{3.5}{18} = \frac{z}{36}$

**i.** $\frac{2.4}{6} = \frac{2.8}{s}$

**g.** $\frac{3.6}{k} = \frac{0.2}{0.5}$

**k.** $\frac{9}{13}, \frac{13}{17}$

**Assume all situations are proportional.**

- An assembly line worker at Rob's Bicycle factory adds a seat to a bicycle at a rate of 2 seats in 11 minutes. Write a proportion relating the number of seats *s* to the number of minutes *m*. At this rate, how long will it take to add 16 seats? 19 seats

- For every girl taking classes at the martial arts school, there are 3 boys who are taking classes at the school. If there are 236 students taking classes, write and solve a proportion to predict the number of boys taking classes at the school.

- Fahd is painting a fence that is 26 feet long and 7 feet tall. A gallon of paint will cover 350 square feet. Write and solve a proportion to determine how many gallons of paint Fahd will need.

## Lesson 7: Constant Rate of Change

Find the constant rate of change for each table.

**A.**

| Number of Trees | Number of Apples |
|---|---|
| 5 | 100 |
| 10 | 200 |
| 15 | 300 |
| 20 | 400 |

**B.**

| Number of Students | Number of Magazines Sold |
|---|---|
| 10 | 100 |
| 15 | 150 |
| 20 | 200 |
| 25 | 250 |

**C.**

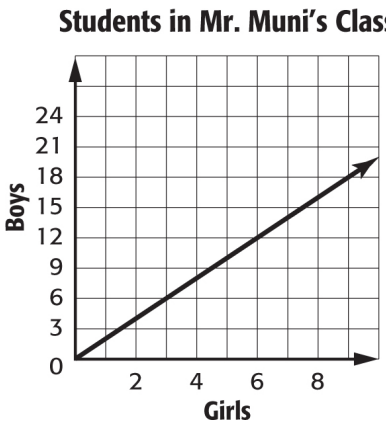
| Time | Temperature (°F) |
|---|---|
| 9:00 | 60 |
| 10:00 | 62 |
| 11:00 | 64 |
| 12:00 | 66 |

**D.**

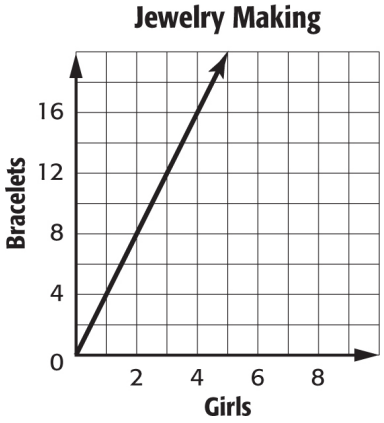
| Time Spent Mowing (h) | Money Earned (AED) |
|---|---|
| 1 | 10 |
| 3 | 30 |
| 5 | 50 |
| 7 | 70 |

**Find the constant rate of change for each graph.**

**A.**




**B.**

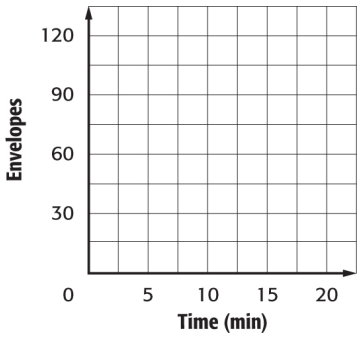


## Lesson 8: Slope

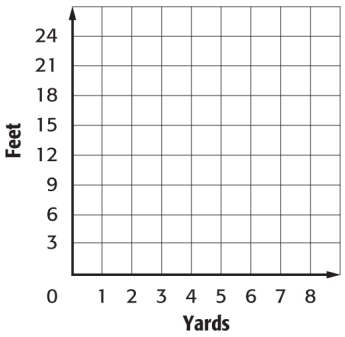
Graph the data. Then find the slope. Explain what the slope represents.

- The table shows the number of envelopes stuffed for various times.

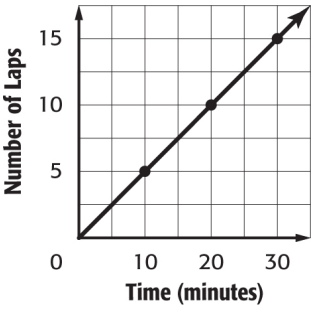
| **Time (min)** | 5 | 10 | 15 | 20 |
|---|---|---|---|---|
| **Envelopes Stuffed** | 30 | 60 | 90 | 120 |



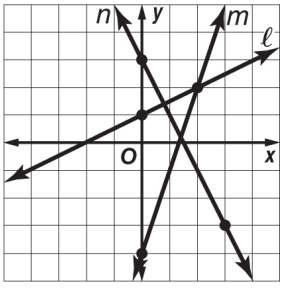

- There are 3 feet for every yard.



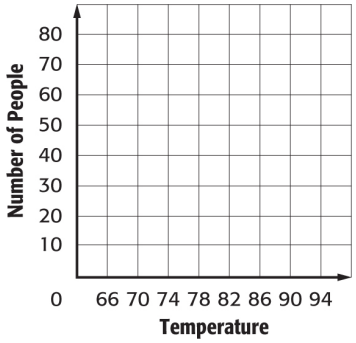

- Use the graph that shows the number of laps completed over time. Find the slope of the line.



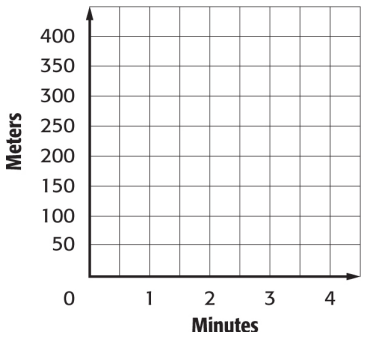

- Which line is the steepest? Explain using the slopes of lines $\ell$, $m$, and $n$.



- | **Temperature (°F)** | 70 | 78 | 86 | 94 |
  |---|---|---|---|---|
  | **Number of People on Beach** | 24 | 40 | 56 | 72 |




- Latonya swims 50 meters in $\frac{1}{2}$ minute.



## Lesson 9: Direct Variation

Determine whether each linear function is a direct variation. If so, state the constant of proportionality.

**A.**

| **Speed, *x*** | 25 | 30 | 35 | 40 |
|---|---|---|---|---|
| **Distance, *y*** | 100 | 120 | 140 | 160 |

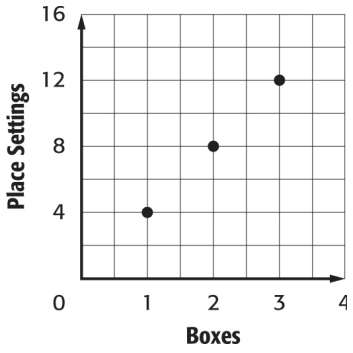
**B.**

| **Price, *x*** | AED 5 | AED 8 | AED 11 | AED 14 |
|---|---|---|---|---|
| **Tax, *y*** | AED 0.50 | AED 0.80 | AED 1.10 | AED 1.40 |

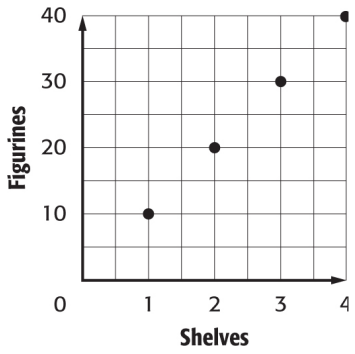
**C.**

| **Seconds, *x*** | 15 | 30 | 45 | 60 |
|---|---|---|---|---|
| **Number of Sit-ups, *y*** | 5 | 10 | 15 | 20 |

**D.** The number of place settings of dishes varies directly with the number of boxes. How many place settings are in each box?



**E.** Majid is arranging figurines on shelves. The number of figurines varies directly with the number of shelves. What is the constant of proportionality?




**F.** Huda paid AED 6.70 for 5 cans of cat food and AED 10.72 for 8 cans of cat food. How much did 1 can of cat food cost?

**G.** You need 2 yards of fabric to cover 3 pillows and 6 yards to cover 9 pillows. How much fabric do you need to cover 15 pillows?

# Chapter 2: Percents

## Lesson 1: Percent of a Number

Find each number. Round to the nearest hundredth if necessary.

**1.** 55% of 140

**2.** 40% of 123

**3.** 37% of AED 150

**4.** 25% of 96

**5.** 11% of AED 333

**6.** 99% of 14

**7.** 140% of 30

**8.** 165% of 10

**9.** 150% of 150

**10.** 225% of 16

**11.** 106% of AED 40

**12.** 126% of 35

**13.** 4.1% of 30

**14.** 45% of 156 is what number?

**15.** What is 12% of 12?

## Lesson 2: Percent and Estimation

**Estimate by using fractions.**

**a.** 51% of 128

**b.** 76% of 200

**c.** 32.9% of 90

**d.** 23% of 8

**f.** 19% of 45

**g.** 81% of 1

Estimate by using 10%.

**a.** 12% of 98

**b.** 89% of 300

**c.** 31% of 80

**d.** 28% of 49

**e.** 62% of 13

**g.** 77% of 28

Estimate.

**a.** 308% of 500

**b.** 0.5% of 87

**Problem Solving**

- The highest point in Arizona is Humphreys Peak, with an elevation of 12,633 feet. Estimate the elevation of the highest point in Florida, located in Walton County, if it is about 2.7% of the highest point in Arizona.

- The brain mass of a newborn baby is about 13% of the body mass of the newborn. If a newborn has a body mass of 2,900 grams, about how much is the mass of the brain?

- The value of a share of stock in an electronics company increased by $\frac{2}{3}$% during one week. If the value of a share of stock was AED 141 at the beginning of the week, estimate the increase in value of a share of stock at the end of the week.

## Lesson 3: The Percent Proportion

**Find each number. Round to the nearest tenth if necessary.**

**1.** What percent of 65 is 13?

**2.** AED 4 is what percent of AED 50?

**3.** What number is 35% of 22?

**4.** 14% of 81 is what number?

**5.** 13 is 26% of what number?

**6.** 55 is 40% of what number?

**7.** What percent of 45 is 72?

**8.** 1% of what number is 7?

**9.** 33 is 50% of what number?

**10.** What number is 3% of 100?

**11.** What percent of 200 is 0.5

**12.** What number is 0.4% of 20?

**Problem Solving**

- Fatima has AED 3 in her wallet. If this is 10% of her monthly allowance, what is her monthly allowance?

- Of the 125 guests invited to a wedding, 104 attended the wedding. What percent of the invited guests attended the wedding?

- The memory card on Saleh's digital camera can hold about 430 pictures. Saleh used 18% of the memory card while taking pictures at a family reunion. About how many pictures did Saleh take at the family reunion? Round to the nearest whole number.

## Lesson 4: The Percent Equation

Write an equation for each problem. Then solve. Round to the nearest tenth if necessary.

**1.** What number is 27% of 52?

**2.** Find 41% of 48.

**3.** What percent of 88 is 33?

**4.** 8 is what percent of 18?

**5.** What number is 33% of 360?

**6.** What percent of 62 is 58?

**7.** 55 is what percent of 100?

**8.** 22% of what number is 24.2?

**9.** 19 is 50% of what number?

**10.** 25 is 32% of what number?

**Problem solving:**

- A baseball player was at bat 473 times during the regular season. If he made a hit 31.5% of the times he was at bat, how many hits did he make during the regular season? Round to the nearest whole number if necessary.

## Lesson 5: Percent of Change

Find each percent of change. Round to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.

**1.** 8 feet to 10 feet

**2.** 136 days to 85 days

**3.** AED 0.32 to AED 0.37

**4.** 62 trees to 31 trees

**5.** 51 meters to 68 meters

**6.** 16.5 grams to 24.8 grams

**7.** 0.55 minute to 0.1 minute

**8.** AED 180 to AED 210

**9.** 2.9 months to 4.9 months

**10.** 0.5 to 0.75

**11.** 0.1 to 0.2

**12.** 1.5 to 0.375

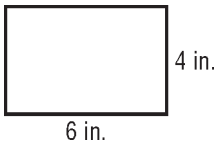
**Problem solving:**

Find each percent of change. Round to the nearest whole percent if necessary. State whether the percent of change is an *increase* or *decrease*.

- Recent developments in surgical procedures change the average healing time for some operations from 8 weeks to 3 weeks.

- The city added an extra lane in each direction to the 5-lane road.

- Refer to the rectangle shown. Suppose the width of 4 inches is decreased by 3 inches.
  **a.** Find the percent of change in the perimeter.
  **b.** Find the percent of change in the area.



## Lesson 6: Sales Tax, Tips, and Markup

**Find the total cost to the nearest cent.**

**1.** AED 18.00 breakfast; 7% tax

**2.** AED 14 meal; 20% tip

**3.** AED 24 lunch; 15% tip

**4.** AED 8.50 shorts; 6.5% markup

**5.** AED 75 dinner; 18% tip

**6.** AED 74.95 jacket; 5% tax

**7.** AED185 DVD player; 6% markup

**8.** AED 85 jeans; 7% tax

**9.** AED 20 haircut; 10% tip

**10.** AED 7.95 lunch; 15% tip

**Problem solving:**

**A)** Jassim took his family out for dinner. He planned to leave a 15% gratuity on the bill. What is the total cost if the bill was AED 123.50?

**B)** What is the sales tax on a AED 17,500 truck if the tax rate is 6%?

**C)** Mohamed is buying a computer that normally sells for AED 890. The state sales tax rate is 6%. What is the total cost of the computer including sales tax?

## Lesson 7: Discount

**Find the sale price to the nearest cent.**

1. AED 89.95 DVD player; 5% discount

2. AED 75 dress shirt; 20% discount

3. AED 14 socks; 15% discount

4. AED 2.99 toy; 30% discount

5. AED140 coat; 10% discount

6. AED 65 dress pants; 20% discount

7. AED 325 tent; 15% discount

8. AED 80 boots; 25% discount

9. AED 45.50 book; 30% discount

10. AED 52 tie; 50% discount

**Problem solving:**

**A)** A radio is on sale for AED 50. If this price represents a 10% discount from the original price, what is the original price to the nearest nickel?

**B)** A box of laundry detergent is on sale for AED 6.50. If this price represents a 40% discount from the original price, what is the original price to the nearest cent?

**C)** Find the price of a AED 35 basketball that is on sale for 50% off the regular price.

## Lesson 8: Financial Literacy (simple interest)

Find the simple interest earned to the nearest cent for each principal, interest rate, and time**.**

**a.** AED 750, 7%, 3 years

**b.** AED 1,200, 3.5%, 2 years

**c.** AED 450, 5%, 4 months

**d.** AED 1,000, 2%, 9 months

**e.** AED 530, 6%, 1 year

**f.** AED 600, 8%, 1 month

Find the simple interest paid to the nearest cent for each loan, interest rate, and time.

**a.** AED 668, 5%, 2 years

**b.** AED 720, 4.25%, 3 months

**c.** AED 2,500, 6.9%, 6 months

**d.** AED 500, 12%, 18 months

**e.** AED 300, 9%, 3 years

**f.** AED 2,000, 20%, 1 year

**Problem Solving**

**A)** Rita charged AED 126 for a DVD player at an interest rate of 15.9%. How much will Rita have to pay after 2 months if she makes no payments?

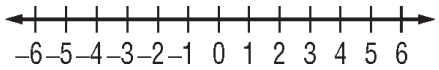
**B)** The average cost for a vacation is AED 1,050. If a family borrows money for the vacation at an interest rate of 11.9% for 6 months, what is the total cost of the vacation including the interest on the loan?

## Chapter 3: "Integers"

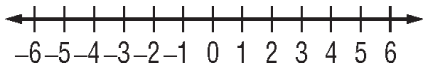
### Lesson 1: Integers and Absolute Value

1. Write an integer for each situation.
   a) a profit of AED 90
   b) 24 meters below sea level
   c) 10°C below zero
   d) a gain of AED 69

2. Graph each set of integers on a number line.
   a) {–4, 0, 4}




   b) {–5, –1, 1, 6}




3. Evaluate each expression.
   a) $|-8|$

   b) $|-3| + 5$

   c) $|9| - |-9|$

   d) $|-14| \div 2 \times |-3|$

4. Write an integer to represent the elevation of Jebel Hafeet at 1,249 meters above sea level.

5. Gasoline prices occasionally fluctuate during a two-month period of time. Prices increased AED 2 per gallon during the month of April and decreased AED 1 per gallon during the month of May. Which situation has the greater absolute value? Explain.

6. A meteorologist reported that in the month of April there were 3 cm more rainfall than normal. Write an integer to represent the amount of rainfall above normal in April.

## Lesson 2: Add Integers

1. **Add**.

   a) $-13 + 42$

   b) $-21 + 30$

   c) $-24 + (-16)$

   d) $7 + (-43)$

   e) $12 + (-12) + 9$

   f) $-34 + (-10) + 25$

2. Write an addition expression to describe each situation. Then find each sum and explain its meaning.

   a) Salama gained 2 kilograms. She then started a diet and lost 10 kilograms of her weight.

   b) At 4:00 A.M., the outside temperature was –8°C. By 4:00 P.M. that same day, it rose 4 degrees.

   c) Saif owes his mom AED 75. He borrows another AED 50 from her.

## Lesson 3: Subtract Integers

1. **Subtract.**

   a) $24 - 16$

   b) $-7 - 3$

   c) $3 - (-4)$

   d) $-1 - (-10)$

   e) $-40 - 20$

   f) $33 - 73$

2. Evaluate each expression if $x = -2$, $y = 3$, and $z = -9$.

   a) $z - y$

   b) $x - y$

   c) $y - (-z)$

   d) $|x - z|$

   e) $x - y - z$

3. The highest and lowest recorded temperatures for a city in a year are 33°C and –2°C. Find the difference in these extreme temperatures.

4. The table lists the scores of 4 players in a game.

| **Player** | Salem | Ahmed | Sultan | Fahe |
|---|---|---|---|---|
| **Score** | –6 | –5 | +6 | +7 |

a) Find the difference between Sultan's score and Ahmed's score.

b) Find the difference between Fahed's score and Salem's score.

c) Find the difference between Ahmed's score and Salem's score.

## Lesson 4: Multiply Integers

1. Multiply.

   a) $5(-6)$

   b) $-12(7)$

   c) $6(-15)$

   d) $-7(-3)$

   e) $(-13)(-13)$

   f) $-15(0)$

   g) $(-2)^3$

   h) $(-3)^2$

   i) $-7(2)(5)$

   j) $(-3)(2)(-3)$

   k) $-2(-5)^3$

**2. Simplify.**

a) $-2(3) - (-5)$

b) $(4)^2 - 2(-3)(-2)$

3. Find the product of –30 and –15.

4. Hiking up a mountain, you notice that the air temperature drops 5°C for every 500 meters increase in elevation. Write a multiplication expression to represent the decrease in temperature if you hike up the mountain 1,000 meters. Then evaluate the expression and explain its meaning.

## Lesson 5: Divide Integers

1. **Divide.**

   a) $64 \div (-8)$

   b) $54 \div (-5)$

   c) $-27 \div 3$

   d) $-24 \div (-8)$

   e) $-52 \div (-13)$

   f) $\frac{-84}{12}$

   g) $\frac{-18}{-3}$

2. Find the quotient of –45 and –15.

3. Evaluate each expression if $f = -24$, $g = 3$, and $h = -4$.

   a) $f \div h$

   b) $f \div gh$

   c) $\frac{h+f}{g+1}$

4. The table below shows the weight in kilograms of some cats in a Zoo. What is the mean weight of these cats?

| **Cat** | Cheetah | Cougar | Lion | Tiger |
|---|---|---|---|---|
| **Weight** | 65 | 100 | 250 | 350 |

## Chapter 4: "Rational Numbers"

### Lesson 1: Terminating and Repeating Decimals

1. Write each fraction or mixed number as a decimal. Use bar notation if the decimal is a repeating decimal.

a) $\frac{3}{8}$

b) $\frac{1}{9}$

c) $-\frac{13}{20}$

d) $-\frac{2}{7}$

e) $\frac{63}{12}$

f) $\frac{9}{32}$

2. Write each decimal as a fraction or mixed number in simplest form.

   a) $0.24$

   b) $-0.13$

   c) $-2.75$

   d) $3.16$

3. The length of a yard is 2.43 kilometers. What mixed number represents this length?

4. Saif completed a marathon race in 3 hours and 12 minutes. Write Saif's running time as a decimal.

## Lesson 2: Compare and Order Rational Number

1. Compare. Use **>, <, or =**

   a) $\frac{1}{6}$ ● $\frac{1}{3}$

   b) $\frac{5}{12}$ ● $\frac{7}{18}$

   c) $-\frac{3}{10}$ ● $-\frac{3}{12}$

   d) $-\frac{2}{5}$ ● $-\frac{3}{12}$

   e) $2\frac{17}{20}$ ● $2\frac{1}{5}$

   f) $-3\frac{1}{6}$ ● $-3\frac{1}{9}$

2. Order from least to greatest.

   $\frac{3}{4}$, $\frac{2}{3}$, 0.82

3. Order from greatest to least.

   $2\frac{7}{8}$, 2.98, 2.4

4. To get to school, $\frac{35}{50}$ of the students ride in the family vehicle, 1 out of 12 students ride on the school bus, and 0.15 of the students ride a bike. Order the types of transportation students use to get to school from least to greatest.

## Lesson 3: Add and Subtract Like Fractions

1. Add or subtract. Write in simplest form.

   a) $\frac{2}{7}+\frac{5}{7}$

   b) $\frac{8}{11}-\frac{7}{11}$

   c) $-\frac{3}{10}-\frac{4}{10}$

   d) $-\frac{2}{5}-\left(-\frac{1}{5}\right)$

   e) $\frac{2}{13}+\frac{4}{13}+\frac{1}{13}$

   f) $\left(\frac{3}{18}\right)+\frac{1}{18}-\frac{11}{18}$

   g) $\left(\frac{4}{9}-\frac{7}{9}\right)+\frac{1}{9}$

2. Salma and Meera each planted tulips. Of Salma's 20 tulips, 18 were red, while 8 of Meera's 20 tulips were red. How much greater was Salma's fraction of red tulips than Meera's?

## Lesson 4: Add and Subtract Unlike Fractions

1. Add or subtract. Write in simplest form.

a) $\frac{1}{18}+\frac{5}{9}$

b) $\frac{11}{15}-\frac{2}{5}$

c) $\frac{7}{12}-\frac{5}{24}$

d) $-\frac{3}{10}-\frac{4}{25}$

e) $\frac{5}{11}-\left(-\frac{3}{44}\right)$

f) $-\frac{2}{7}-\frac{1}{2}$

g) $3+\frac{1}{6}$

h) $4-\frac{3}{4}$

i) $\frac{2}{3}+\frac{4}{15}+\frac{1}{9}$

j) $\frac{3}{4}+\frac{1}{6}-\frac{11}{12}$

2. If $\frac{2}{3}$ of the girls in class have brown eyes and $\frac{1}{12}$ of the girls have blue eyes, what fraction of the girls in class have neither blue or brown eyes?

3. Hamad made an apple pie. His brother ate $\frac{1}{9}$ of the pie and his sister ate $\frac{3}{5}$ of the pie. How much less did his brother eat than his sister?

## Lesson 5: Add and Subtract Mixed Numbers

1. Add or subtract. Write in simplest form.

   a) $7\frac{3}{8}+1\frac{1}{8}$

   b) $5\frac{5}{7}-1\frac{1}{7}$

   c) $4\frac{3}{4}+3\frac{1}{2}$

   d) $6\frac{7}{10}-3\frac{1}{4}$

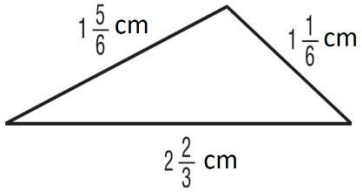
   e) $9\frac{9}{20}+1\frac{4}{5}$

   f) $4\frac{5}{8}-2\frac{7}{8}$

   g) $7-2\frac{3}{10}$

h) $3\frac{1}{18} + 3\frac{5}{9} - 2\frac{1}{6}$

2. Find the perimeter of the triangle.




3. Nada knitted two scarves for her dolls. One was $10\frac{3}{4}$ cm long. The other was $3\frac{1}{8}$ cm shorter than the first. How long was the second scarf?

## Lesson 6: Multiply Fractions

1. Multiply. Write in simplest form.

   a) $\frac{4}{5} \times \frac{1}{2}$

   b) $-\frac{5}{14} \times 7$

   c) $-\frac{6}{13} \times \left(-\frac{1}{6}\right)$

   d) $\frac{5}{7} \times \frac{2}{5}$

   e) $-\frac{5}{8} \times \frac{24}{25}$

   f) $3\frac{2}{9} \times \frac{3}{8}$

   g) $\frac{2}{26} \times \left(-4\frac{1}{3}\right)$

   h) $20 \times 2\frac{2}{5}$

i) $3\frac{1}{3} \times \left(-2\frac{2}{3}\right)$

j) $-2\frac{2}{7} \times 1\frac{1}{6}$

2. Find $\frac{1}{5}$ of $\frac{1}{10}$ of a meter.

3. Find $\frac{1}{3}$ of $\frac{1}{60}$ of an hour.

4. Evaluate each verbal expression.
   a) one fourth of two eighths

   b) three fifths of one half

5. A hiker averages $6\frac{1}{4}$ kilometers per hour. If he hikes for $3\frac{1}{3}$ hours, how many kilometers does he hike?

1. Complete. Round to the nearest hundredth if necessary.

a) 3.42 m ≈ yd

b) 1.4 mi ≈ km

c) 0.35 m ≈ ft

d) 4.5 qt ≈ mL

e) 600 mL ≈ pt

f) 4.24 L ≈ gal

g) 815.5 g ≈ lb

h) 8.5 in. ≈ cm

i) 94 cm ≈ in.

j) 250 mL ≈ c

k) 9 c ≈ mL

l) 320 lb ≈ kg

3. Determine which measurement is greater.

   a) 4 yd, 2.7 m

   b) 9 lb, 5 kg

4. Order the following measures from least to greatest: 1.5 m, 20 in., 1.15 ft, 250 cm

5. Salem used 2.8 pounds of sugar in a recipe. About how many grams is the mass of the sugar?

6. Hind measured the length of her room and found that it was 5 meters long. About how many yards is the length of her room?

**Lesson 8: Divide Fractions**

1. Divide. Write in simplest form.

a) $\frac{3}{10} \div \frac{3}{5}$

b) $-\frac{2}{7} \div \frac{6}{35}$

c) $9 \div \frac{1}{5}$

d) $\frac{2}{11} \div 4$

e) $5\frac{1}{5} \div (-13)$

f) $2 \div 1\frac{1}{3}$

g) $\frac{\mathbf{3}}{8} \div 2\frac{\mathbf{1}}{\mathbf{6}}$

h) $-\frac{2}{9} \div \left(-3\frac{1}{8}\right)$

i) $6\frac{1}{4} \div \frac{7}{16}$

j) $-8\frac{1}{9} \div \frac{4}{9}$

2. Use the table that shows the weights of three sizes of pizza.

| Pizza Size | Weight |
|---|---|
| Extra-large | $4\frac{1}{2}$ |
| Medium | $3\frac{1}{8}$ |
| Small | $1\frac{1}{4}$ |

a) How many times as heavy is the extra-large pizza than the small pizza?

b) How many times heavier is the medium pizza than the small pizza?