



Grade 7 **General**

Al Sooqor School

Term1 Revision

2025-2026

1. truck driver drove 48 miles in 45 minutes. At this rate, **how many miles can the truck driver drive in one hour?**

2. Russell runs $\frac{9}{10}$ mile in 5 minutes. At this rate, **how many miles can he run in one minute?**

3. A small airplane flew 104 miles in 50 minutes. At this rate, **how many miles can it fly in one hour?**

(50 minutes = $\frac{5}{6}$ hour)

4. DeAndre downloaded 8 apps onto his tablet in 12 seconds. At this rate, **how many apps could he download in one minute?**

(12 seconds = $\frac{1}{5}$ minute)

5. In Lixue's garden, the green pepper plants grew 5 inches in $\frac{3}{4}$ month. At this rate, **how many feet can they grow in one month?**

(Let 5 inches = $\frac{9}{10}$ foot)

6. Thunder from a bolt of lightning travels $\frac{1}{10}$ mile in $\frac{1}{2}$ second. At this rate, **how many miles can it travel in one second?**

Determine if the situation represents a proportional relationship. Explain your reasoning.

1. A salad dressing calls for 3 parts oil and 1 part vinegar. Manuela uses 2 tablespoons of vinegar and 6 tablespoons of oil to make her salad dressing.

2. A specific shade of orange paint calls for 2 parts yellow and 3 parts red. Catie uses 3 cups of yellow paint and 4 cups of red paint to make orange paint.

3. A saltwater solution for an aquarium calls for 35 parts salt to 1000 parts water. Tareq used 7 tablespoons of salt and 200 tablespoons of water.

Determine if the situation represents a proportional relationship. Explain your reasoning.

4. A conveyor belt moves at a constant rate of 12 feet in 3 seconds. A second conveyor belt moves 16 feet in 4 seconds.

5. A tectonic plate in Earth's crust moves at a constant rate of 4 centimeters per year. In a different part of the world, another tectonic plate moves at a constant rate of 30 centimeters in ten years.

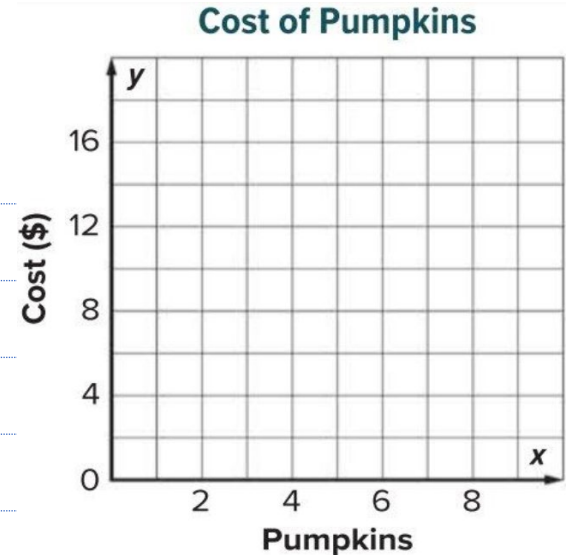
6. A strand of hair grows at a constant rate $\frac{1}{2}$ of inch per month. A different strand of hair grows at a constant rate of 4 inches per year.

7. Multiselect One blend of garden soil is 1 part minerals, 1 part peat moss, and 2 parts compost. Select all of the mixtures below that are in a proportional relationship with this blend.

- ☐ 5 ft³ minerals, 5 ft³ peat moss, 10 ft³ compost
- ☐ 10 ft³ minerals, 15 ft³ peat moss, 15 ft³ compost
- ☐ 12 ft³ minerals, 12 ft³ peat moss, 24 ft³ compost
- ☐ 20 ft³ minerals, 20 ft³ peat moss, 40 ft³ compost
- ☐ 100 ft³ minerals, 100 ft³ peat moss, 200 ft³ compost
- ☐ 50 ft³ minerals, 50 ft³ peat moss, 50 ft³ compost

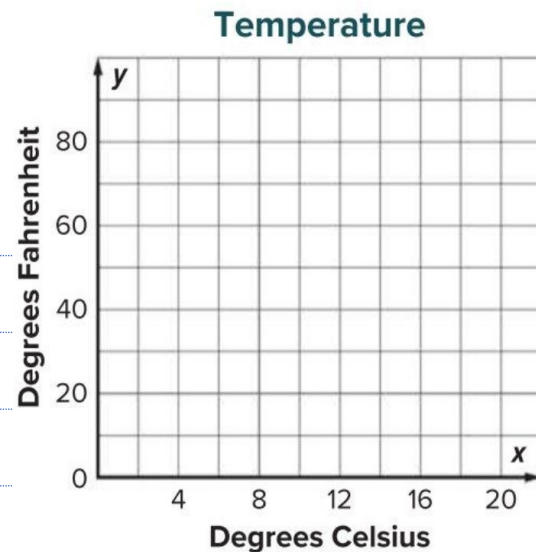
1. The cost of pumpkins is shown in the table. Determine whether the cost of a pumpkin is proportional to the number bought by graphing the relationship on the coordinate plane.

Number of Pumpkins	0	1	2	3	4
Cost (\$)	0	4	8	12	16



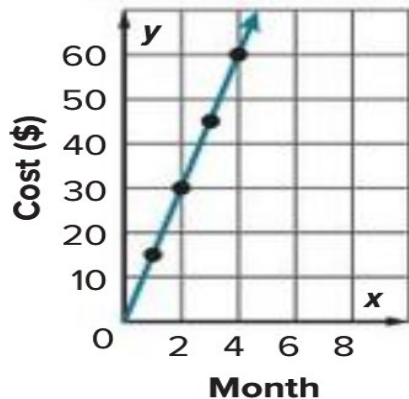
2. The table shows temperatures in degrees Celsius and their equivalent temperatures in degrees Fahrenheit. **Determine whether the temperature in degrees Fahrenheit is proportional to the temperature in degrees Celsius by graphing the relationship on the coordinate plane.**

Celsius (degrees)	0	5	10	15	20
Fahrenheit (degrees)	32	41	50	59	68



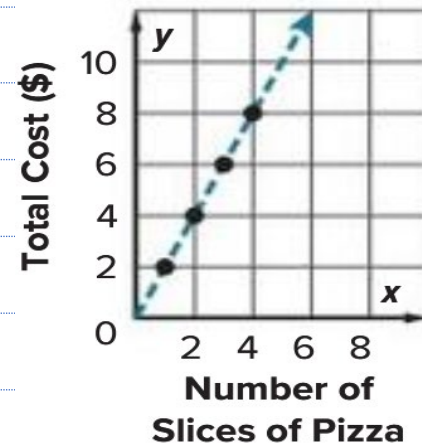
3. The total cost of online streaming is proportional to the number of months. **What is the constant of proportionality?**

Online Streaming of TV Shows/Movies



4. The cost per slice of pizza is proportional to the number of slices as shown in the graph. **What do the points (0, 0) and (1, 2) represent?**

Pizza Slices Cost



3. Lincoln bought 3 bottles of an energy drink for \$4.50. Write an equation relating the total cost y to the number of energy drinks bought x .

4. The total cost of renting a cotton candy machine for 4 hours is \$72. **What equation can be used to model the total cost y for renting the cotton candy machine x hours?**

5. Marley used 7 cups of water to make 4 loaves of French bread. **What equation can be used to model the total cups of water needed y for making x loaves of French bread? How many cups of water do you need for 6 loaves of French bread?**

6. Mrs. Henderson used $6\frac{3}{4}$ yards of fabric to make 3 elf costumes. **What equation can be used to model the total number of yards of fabric y for x costumes? How many yards of fabric do you need for 7 elf costumes?**

Find the total cost to the nearest cent.

1. \$18 breakfast; 7% tax

2. \$24 shirt; 6% tax

3. \$49.95 pair of shoes;
5% tax

4. Emily wants to buy new boots that cost \$68. The sales tax rate in her city is $5\frac{1}{2}\%$. **What is the total cost for the boots?**

5. Jack wants to buy a coat that costs \$74.95. The sales tax rate in his city is $6\frac{1}{2}\%$. **What is the total cost for the coat?**

11. Louise bought a frame and canvas online for \$125. Then she bought the supplies shown in the table and paid a 7% sales tax on these supplies only. She took the amount that she spent on the canvas, frame, and supplies, and marked up the price by 115%. How much did she charge for her painting? Round to the nearest cent.

Item	Cost(\$)
Brushes	12.50
Paint	19.50

12. Brendan has \$65 worth of balloons and flowers delivered to his mother. He pays the bill plus an 8.5% sales tax and an 18% tip on the total cost including tax. He also pays a \$10 delivery fee that is charged after the tax and tip. How much change does he receive if he pays with two \$50 bills? Round to the nearest cent.

13. Toru takes his dog to be groomed. The fee to groom the dog is \$70 plus a 10% tip. Is \$80 enough to pay for the service and tip? Explain your reasoning.

14. Use a Counterexample Determine if the following statement is true or false. If false, provide a counterexample. It is impossible to increase the cost of an item by less than 1%.

Find the sale price to the nearest cent.

1. \$140 coat; 10% discount

2. \$80 boots; 25% discount

3. \$325 tent; 15% discount

4. A toy store is having a sale. A video game system has an original price of \$99. It is on sale for 40% off the original price. **Find the sale price of the game system. Round to the nearest cent.**

5. A yearly coffee club subscription costs \$65. Avery received an offer for 62% off the subscription cost. **What is the sale price of the subscription? Round to the nearest cent.**

6. During a clearance sale at a sporting goods store, skateboards were marked down 30%. On Saturday, an additional 25% was taken off already reduced prices of skateboards. If a skateboard originally cost \$119.50, **what was the final price after all discounts had been taken? Round to the nearest cent.**

7. At an electronics store, a smart phone is on sale for 35% off the original price of \$679. If you use the store credit card, you can receive an additional 15% off the sale price. **What is the final price of the smart phone if you use the store credit card? Round to the nearest cent.**

8. Gary had a 40% discount for new tires. The sale price of a tire was \$96.25. **What was the original price of the tire? Round to the nearest cent.**

9. A swimsuit is on sale for \$45.50. If the sale price is discounted 5% from the original price, **what was the original price? Round to the nearest cent.**

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

1. \$530, 6%, 1 year

2. \$1200, 3.5%, 2 years

3. \$750, 7%, 3 year

4. Elena's father put \$460 into a savings account for her. The account pays 2.5% simple interest each year. If he neither adds nor withdraws money from the account, **how much interest will the account earn after 4 years? Round to the nearest cent.**

5. Ethan put \$1,250 into a savings account. The account pays 4.5% simple interest on an annual basis. If he does not add or withdraw money from the account, **how much interest will he earn after 2 years? Round to the nearest cent.**

6. Marc deposits \$840 into a savings account. The account pays 2% simple interest on an annual basis. If he does not add or withdraw money from the account, **how much interest will he earn after 6 months? Round to the nearest cent.**

7. Nina's grandmother deposits \$3,000 into a savings account for her. The account pays 5.5% simple interest on an annual basis. If she does not add or withdraw money from the account, **how much interest will she earn after 21 months? Round to the nearest cent.**

1. Mrs. Hollern works in a jewelry store and earns an 8.5% commission on every piece of jewelry she sells. How much commission would she earn for selling a necklace that costs \$4,600?

2. Booker's father sells computer software and earns a 4.25% commission on every software package he sells. How much commission would he earn on a software package that sold for \$15,725? Round to the nearest cent.

3. Chase wants to earn at least \$900 this month in commission. What is the minimum amount he needs to sell in order to earn \$900 if he earns a 3.3% commission on everything he sells? Round to the nearest dollar.

4. Sophia needs to earn at least \$1,800 each month to cover her living expenses. What is the minimum amount she needs to sell in order to earn at least \$1,800 if she earns a 10.75% commission on everything she sells? Round to the nearest dollar.

5. Mrs. Jackson needs to earn \$3,000 a month. How much does she need to sell if she earns 15% commission on everything she sells?

6. Raymond purchases concert tickets online for \$43.50. There is a 3% processing fee. What is the total cost of the tickets? Round to the nearest cent.

Add.

1. $-3 + (-8) =$

2. $-11 + (-13) =$

3. $9 + (-35) =$

4. $-28 + 14 =$

5. $-22 + (-10) + 15 =$

6. $18 + (-12) + 5 =$

7. Roger owes his father \$15. He borrows another \$25 from him. **What integer represents the balance that he owes his father?**

8. A football team lost 14 yards on their first play then lost another 7 yards on the next play. **What integer represents the total change in yards for the two plays?**

Subtract.

1. $9 - (-2) =$
.....
.....

2. $-20 - 10 =$
.....
.....

3. $13 - (-63) =$
.....
.....

4. $28 - 14 =$
.....
.....

5. $-10 - 0 =$
.....
.....

6. $-33 - 33 =$
.....
.....

7. $-18 - (-12) =$
.....
.....

8. $-28 - (-13) =$
.....
.....

9. $-18 - (-40) =$
.....
.....

Multiply.

1. $4(-7) =$

2. $-14(5) =$

3. $9(-12) =$

4. $-6(-8) =$

5. $-10(-10) =$

6. $-11(-13) =$

7. $7(-5)(4) =$

8. $(-8)(-7)(3) =$

9. $-2(-12)(-8) =$

Evaluate each expression

1. $-5(6) + (-9) =$

2. $\frac{-36}{9} + (-7) =$

3. $-4(-8) + (-10) =$

4. $2(-5)(-6) - (-12) =$

5. $10(-3)(4) - (-15) =$

6. $2\left(\frac{-80}{4}\right) - 14 =$

Write each fraction as a decimal. Determine if the decimal is a terminating decimal.

1. $\frac{5}{8} =$

2. $-\frac{3}{4} =$

3. $\frac{2}{9} =$

4. $-\frac{5}{6} =$

Write each fraction as a decimal. Determine if the decimal is a terminating decimal.

5. $-\frac{4}{5} =$

6. $\frac{23}{50} =$

7. $-\frac{9}{22} =$

8. $\frac{17}{24} =$

Write each fraction as a decimal. Determine if the decimal is a terminating decimal.

9. $-\frac{1}{33} =$

10. $-\frac{11}{40} =$

11. $\frac{7}{32} =$

12. $-\frac{3}{7} =$

Find the additive inverse of each rational number.

1. $-\frac{1}{2}$	5. Quinn earned \$24.50 dog-sitting and \$12.70 for recycling cans. Find the total amount he earned and describe a situation in which Quinn ends the week with zero dollars.	6. Rachel spent \$3.89 on a magazine and \$4.86 on a smoothie. Find the total amount she spent and describe a situation in which Rachel ends the day with zero dollars
2. -0.4		
3. $\frac{9}{10}$		
4. -0.4		

Add. Write in simplest form.

7. $3\frac{5}{6} + \left(-1\frac{1}{6}\right)$

8. $-13\frac{1}{4} + 4\frac{3}{4}$

9. $-\frac{2}{3} + 2\frac{3}{8}$

Add. Write in simplest form.

10. $2\frac{1}{2} + \left(-\frac{1}{3}\right)$

11. $-3.7 + \frac{1}{4}$

12. $\frac{1}{3} + 4.1$

Add. Write in simplest form.

13. $-1\frac{1}{4} + 0.75 + 0.45$

14. $-0.25 + 3\frac{1}{6} + 2\frac{1}{12}$

Multiply. Write the product in simplest form.

1. $-\frac{1}{2}\left(-\frac{4}{5}\right) =$

2. $-\frac{3}{8}\left(-\frac{8}{9}\right) =$

3. $-\frac{1}{4}\left(-\frac{4}{5}\right) =$

Multiply. Write the product in simplest form.

4. $1\frac{4}{9}\left(-2\frac{4}{7}\right) =$

5. $1\frac{1}{10}\left(-6\frac{7}{8}\right) =$

6. $-5\frac{1}{4}\left(-4\frac{2}{3}\right) =$

Divide. Write your answer in simplest fraction form.

1. $-\frac{6}{7} \div \frac{3}{14} =$

2. $-\frac{3}{4} \div \left(-\frac{1}{2}\right) =$

3. $\frac{2}{3} \div \left(-\frac{4}{9}\right) =$

4. $-\frac{4}{7} \div \frac{8}{9} =$

Divide. Write your answer in simplest fraction form.

5. $-\frac{3}{5} \div \left(-\frac{3}{4}\right) =$

6. $-5\frac{3}{4} \div \left(2\frac{1}{16}\right) =$

7. $7\frac{1}{2} \div \left(-2\frac{5}{6}\right) =$

8. $-3\frac{4}{9} \div \left(-2\frac{1}{3}\right) =$

Divide. Write your answer in simplest fraction form.

9. $2\frac{2}{3} \div \left(-1\frac{1}{6}\right) =$

10. $-3\frac{2}{5} \div \left(-5\frac{1}{10}\right) =$

11. $-5\frac{1}{4} \div \frac{7}{8} =$

12. $8\frac{1}{3} \div \left(-\frac{5}{9}\right) =$

Evaluate each expression if $a = \frac{7}{8}$, $b = -\frac{7}{16}$, $c = 0.8$, $d = \frac{1}{4}$

1. $\frac{a}{b} - c + d$

2. $a + b + cd$

3. $c - a + \frac{b}{d}$

Evaluate each expression if $a = \frac{7}{8}$, $b = -\frac{7}{16}$, $c = 0.8$, $d = \frac{1}{4}$

4. $\frac{b}{a} + \frac{c}{d}$

5. $d^2 - b$

6. $a + \frac{b}{c} - d$

For the situation, complete the table given. Does the situation represent a proportional relationship? Explain.

1. “The cost of a school lunch is \$2.50.”

Lunches Bought	1	2	3	4
Total Cost (\$)				

2. “Anna walks her dog at a constant rate of 12 blocks in 8 minutes.”

Number of Blocks	12	24	36	48
Number of Minutes				

For the situation, complete the table given. Does the situation represent a proportional relationship? Explain.

3. “Fun Center rents popcorn machines for \$20 per hour. In addition to the hourly charge, there is a rental fee of \$35.”

Hours	1	2	3	4
Cost (\$)				

4. “Jean has \$280 in her savings account. Starting next week, she will deposit \$30 in her account every week.”

Weeks	1	2	3	4
Saving (\$)				

5. Rocko paid \$12.50 for 25 game tickets. Louisa paid \$17.50 for 35 game tickets. **What is the constant of proportionality?**

6. A baker, in 70 minutes, iced 40 cupcakes and, in 49 minutes, iced 28 cupcakes. **What is the constant of proportionality?**

7. The table shows the amount of dietary fiber in bananas. Use the table to **find the constant of proportionality**.

Dietary Fiber (g)	9.3	18.6	27.9	37.2
Bananas	3	6	9	12

8. Open Response The table shows the distance traveled by a runner. Use the table to **find the constant of proportionality**.

Distance (mi)	4.55	13.65	22.75	31.85
Time(h)	0.5	1.5	2.5	3.5

Find each percent of change. Identify it as a percent of increase or decrease.

1. 5 feet to 10 feet

2. 62 trees to 31 trees

3. 136 days to 85 days

4. Last month, the online price of a powered ride-on car was \$250. This month, the online price is \$330. What is the percent of increase for the price of the car?

5. At end of the first half of a football game, Nathan had carried the ball for 50.5 yards. By the end of the game, he carried the ball for a total of 75 yards. **Find the percent of increase in the number of yards he carried. Round to the nearest whole tenth if necessary.**

6. A music video website received 5,000 comments on a new song they released. The next day, the artist performed the song on television and an additional 1,500 comments were made on the website. **What was the percent of increase?**

7. When Ricardo was 9 years old, he was 56 inches tall. Ricardo is now 12 years old and he is 62 inches tall. **Find the percent of increase in Ricardo's height to the nearest tenth.**

8. At a garage sale, Petra priced her scooter for \$15.50. She ended up selling it for \$10.75. **Find the percent of decrease in the price of the scooter. Round to the nearest tenth if necessary.**

10. Evaluate ab
if $a = -16$ and
 $b = -5$.

11. Evaluate xy
if $x = -10$ and
 $y = -7$.

12. Evaluate xyz^2
if $x = -2$, $y = 7$
and $z = -4$.

13. Evaluate a^2bc
if $a = 3$, $b = -14$
and $c = -6$.

(7 - 9) Evaluate each expression if $m = -32$, $n = 2$, and $p = -8$.

$$7. \frac{m}{n} =$$

$$8. \frac{m}{p} =$$

$$9. \frac{p}{n} =$$

(10 - 12) Evaluate each expression if $f = -15$, $g = 5$, and $h = -45$.

$$10. \frac{f}{g} =$$

$$11. \frac{h}{f} =$$

$$12. \frac{h}{g} =$$

Subtract. Write in simplest form.

A. $2\frac{2}{5} - 6.55 =$

B. $4.6 - 2\frac{2}{3} =$

Subtract. Write in simplest form.

1. $-2.45 - (-3.9)$

2. $-4.6 - (-2.31)$

3. $5.47 - (-2.8)$

Subtract. Write in simplest form.

4. $-6.2 - 3.79$

5. $7\frac{5}{12} - \left(-3\frac{3}{4}\right)$

6. $5\frac{9}{10} - \left(-8\frac{2}{5}\right)$

Subtract. Write in simplest form.

7. $-\frac{7}{8} - 2\frac{1}{6}$

8. $-\frac{8}{15} - 3\frac{4}{5}$

9. $-9\frac{7}{10} - \left(-4\frac{3}{5}\right)$

Subtract. Write in simplest form.

10. $\frac{5}{6} - \left(-\frac{3}{4}\right)$

11. $-\frac{2}{3} - \left(-\frac{1}{2}\right)$

12. $-\frac{7}{10} - \left(-\frac{4}{15}\right)$