

## Pracovní list – CLIL ve výuce matematiky

Téma: procenta

Ročník: 7.(sekunda)

Časová náročnost: 15 minut

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### 1) Pustíme video v angličtině

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-percent-problems/v/finding-percentages-example>

Jedná se o jednoduché výpočty procent z celku.

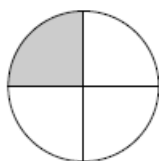
2) Okomentujeme a případně česky doplníme nejasnosti. (video lze pustit i v češtině)

3) Dál můžeme pracovat s různými úlohami, doporučeno je používat již vytvořené pracovní listy např. ze stránek [www.superteacherworksheets.com](http://www.superteacherworksheets.com). Bez problémů lze používat materiály označené FREE, ostatní lze použít pro výukové účely, nelze je dále publikovat....



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

## Fractions, Decimals, and Percents

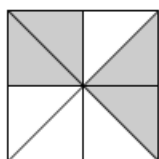


Tell what part of the circle is shaded.

\_\_\_\_\_ fraction

\_\_\_\_\_ decimal

\_\_\_\_\_ percent



Tell what part of the square is shaded.

\_\_\_\_\_ fraction

\_\_\_\_\_ decimal

\_\_\_\_\_ percent

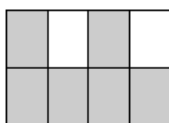


Tell what part of the star is shaded.

\_\_\_\_\_ fraction

\_\_\_\_\_ decimal

\_\_\_\_\_ percent

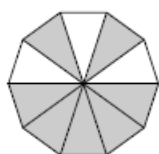


Tell what part of the rectangle is shaded.

\_\_\_\_\_ fraction

\_\_\_\_\_ decimal

\_\_\_\_\_ percent



Tell what part of the polygon is shaded.

\_\_\_\_\_ fraction

\_\_\_\_\_ decimal

\_\_\_\_\_ percent

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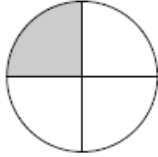


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„Rozvoj profesionálních kompetencí pro 21. století“  
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## ANSWER KEY

### Fractions, Decimals, and Percents



Tell what part of the circle is shaded.

$$\frac{1}{4}$$

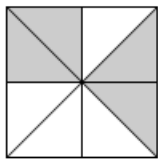
fraction

$$.25$$

decimal

$$25\%$$

percent



Tell what part of the square is shaded.

$$\frac{4}{8}$$

fraction

$$.5$$

decimal

$$50\%$$

percent



Tell what part of the star is shaded.

$$\frac{3}{5}$$

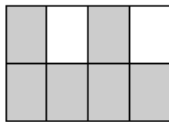
fraction

$$.6$$

decimal

$$60\%$$

percent



Tell what part of the rectangle is shaded.

$$\frac{6}{8}$$

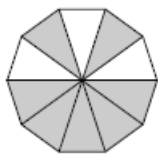
fraction

$$.75$$

decimal

$$75\%$$

percent



Tell what part of the polygon is shaded.

$$\frac{7}{10}$$

fraction

$$.7$$

decimal

$$70\%$$

percent

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# Pracovní list – CLIL ve výuce matematiky

Téma: procenta2 - zlomky

Ročník: 7.(sekunda)

Časová náročnost: 20 minut

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## 1) Pustíme video v angličtině

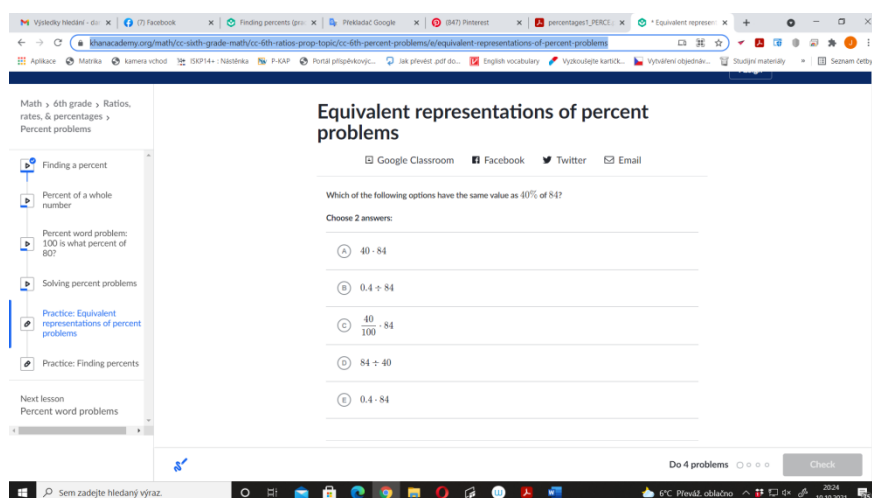
<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-percent-problems/v/finding-percentages-example>

Jedná se o jednoduché vyjádření procent pomocí zlomku.

2) Okomentujeme a případně česky doplníme nejasnosti. (video lze pustit i v češtině)

3) Dál lze pracovat přímo se cvičeními připravenými v KhanAcademy

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-percent-problems/e/equivalent-representations-of-percent-problems>



The screenshot shows a browser window with the Khan Academy website. The page title is "Equivalent representations of percent problems". The main content area contains a question: "Which of the following options have the same value as 40% of 84? Choose 2 answers:". Below the question are five radio button options:  40 - 84,  0.4 + 84,   $\frac{40}{100} - 84$ ,  84 + 40, and  0.4 - 84. The left sidebar shows a navigation menu with items like "Finding a percent", "Percent of a whole number", "Percent word problems", "Solving percent problems", "Practice: Equivalent representations of percent problems", and "Practice: Finding percents". The bottom of the page shows a progress bar and a "Check" button.



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## Pracovní list – CLIL ve výuce matematiky

Téma: procenta3 -slovní úlohy

Ročník: 7.(sekunda)

Časová náročnost: 20 minut

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### 1) Pustíme video v angličtině

<https://www.khanacademy.org/math/cc-sixth-grade-math/cc-6th-ratios-prop-topic/cc-6th-percent-problems/v/finding-percentages-example>

Jedná se o návod na řešení slovních úloh.

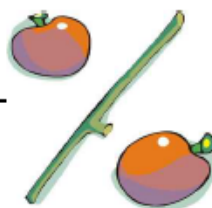
2) Okomentujeme a případně česky doplníme nejasnosti. (video lze pustit i v češtině)

3) Vytvoříme skupiny a necháme řešit každou skupinu jednu úlohu (dovolíme používat slovník). Pokud jsou studenti již dostatečně jazykově vybaveni, mohou jednotlivá řešení prezentovat v angličtině.



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

## Percentages - Word Problems



1. Georgie has a bushel basket of apples to sell at her fruit stand. 1 out of every 5 can not be sold because they are not ripe yet. What percent of her apples are not ripe?  
answer: \_\_\_\_\_
2. Sean spelled 13 out of 20 words correctly on his spelling test. Write his test score as a percent.  
answer: \_\_\_\_\_
3. Darlene wants to buy the Martian Invaders video game. The video game price is \$100. Darlene has a coupon for 25%. What is the price of the game with the coupon?  
answer: \_\_\_\_\_
4. Chloe's teacher gave her a science test with 25 questions on it. She scored 80% on the test. How many questions did she answer incorrectly?  
answer: \_\_\_\_\_
5. Carter's football team played 10 games this season. They won only 20% of their games. How many games did Carter's team lose?  
answer: \_\_\_\_\_

### ★ Super Challenge:

The students at Mill Middle School held a class election. Alyssa and Megan were the only two candidates running for class president. Megan received 21 votes and Alyssa received 29 votes. What percent of the votes did Alyssa receive?

answer: \_\_\_\_\_

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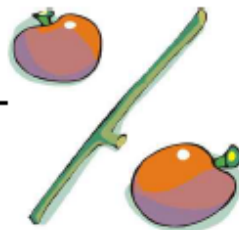


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## ANSWER KEY

### Percentages - Word Problems



1. Georgie has a bushel basket of apples to sell at her fruit stand. 1 out of every 5 cannot be sold because they are not ripe yet. What percent of her apples are not ripe?  
answer: **20%**
2. Sean spelled 13 out of 20 words correctly on his spelling test. Write his test score as a percent.  
answer: **65%**
3. Darlene wants to buy the Martian Invaders video game. The video game price is \$100. Darlene has a coupon for 25%. What is the price of the game with the coupon?  
answer: **\$75**
4. Chloe's teacher gave her a science test with 25 questions on it. She scored 80% on the test. How many questions did she answer incorrectly?  
answer: **5**
5. Carter's football team played 10 games this season. They won only 20% of their games. How many games did Carter's team lose?  
answer: **8**

#### ★ Super Challenge:

The students at Mill Middle School held a class election. Alyssa and Megan were the only two candidates running for class president. Megan received 21 votes and Alyssa received 29 votes. What percent of the votes did Alyssa receive?

answer: **58%**



## Pracovní list – CLIL ve výuce matematiky

Téma: úpravy číselných výrazů (order of operation)

Ročník: 7.(sekunda)

Časová náročnost: 15 minut

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1) CLIL může být uplatněn i tak, že jednoduchá matematická pravidla předložíme studentům v angličtině, toho je využito v tomto listu

**When you have different operations in a math problem,**

**You need to solve them in a specific order.**

**Step 1: Solve the part in parenthesis ( ) and find the value of the exponents.**

**Step 2: Multiply and divide, from left to right.**

**Step 3: Add and subtract, from left to right.**





## 2) Solve

$$(-15) \cdot (-2) - (-9) \cdot 4$$

$$4 \cdot (-1) - [(-5) \cdot 3]$$

$$-11 \cdot (-1) + [-4 \cdot (-3)]$$

$$(-3) \cdot (+2) + (-7) - (-1) \cdot (-3)$$

$$5 \cdot (+1) - 9 \cdot (-2) + (-5) \cdot (-4)$$

$$(-1) - [-8 \cdot (-2)] + [(-10) \cdot (-5)]$$

$$(-13) \cdot (+2) - (-7) - (-1) \cdot (-3)$$

$$15 \cdot (-1 + 5) - 11 \cdot (-3) + (-5) \cdot (-7)$$

$$(-1) - [-3 \cdot (-4)] + [(-7) \cdot (-8)]$$

$$2 - 25 - 16 + 59 - 71$$

$$13 \cdot 6 - 17 + 4 - 32 \cdot 3$$

$$|-5 - 23| \cdot 3 - 2 \cdot |-2 + 4| + 71$$

