

7th Grade
Nov 12, 2020

Please get out your
video notes.

Today we will:
-review video notes
-begin WS

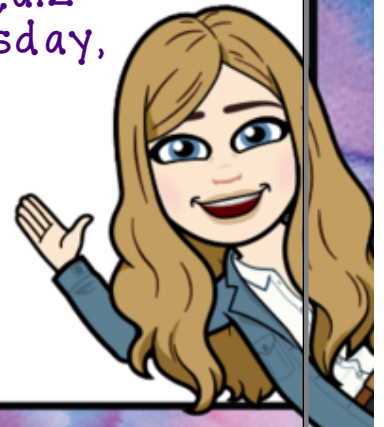


HOMEWORK:

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ALEKS-5 topics and
60 minutes due by
11:59pm Monday
night

Benchmark quiz
next Wednesday,
Nov 18.



Complex fractions are
fractions over fractions.
To simplify, write across,
then KCF (keep change, flip)

Solve to make a
denominator of 1 to
make a unit rate.
So... divide numerator
by denominator.

percent means per 100.
for means put 100 in the
denominator.

Simplify. (Examples 1 and 2)

$$1. \frac{18}{\frac{3}{4}} = \frac{18}{1} \div \frac{3}{4} = \frac{18}{1} \times \frac{4}{3} = \frac{24}{1}$$

$$2. \frac{\frac{3}{6}}{\frac{4}{1}} = \frac{3}{6} \div \frac{4}{1} = \frac{3}{6} \times \frac{1}{4} = \frac{3}{24}$$

$$3. \frac{\frac{1}{3}}{\frac{1}{4}} = \frac{1}{3} \div \frac{1}{4} = \frac{1}{3} \times \frac{4}{1} = \frac{4}{3}$$

$$4. \frac{\frac{1}{3}}{\frac{3}{5}} = \frac{1}{3} \div \frac{3}{5} = \frac{1}{3} \times \frac{5}{3} = \frac{5}{9}$$

$$5. \frac{\frac{11}{1}}{\frac{1}{2}} = \frac{11}{1} \div \frac{1}{2} = \frac{11}{1} \times \frac{2}{1} = 22$$

$$6. \frac{\frac{4}{7}}{\frac{2}{1}} = \frac{4}{7} \div \frac{2}{1} = \frac{4}{7} \times \frac{1}{2} = \frac{2}{7}$$

7. Monica reads $7\frac{1}{2}$ pages of a mystery book in 9 minutes. What is her average reading rate in pages per minute? (Example 3)

$$\frac{\text{pages}}{\text{min}} = \frac{7\frac{1}{2}}{9} = \frac{7 \times 2}{9} \div 9 = \frac{14}{9} \div 9 = \frac{14}{9} \times \frac{1}{9} = \frac{14}{81}$$

$7\frac{1}{2} \div 9 = \frac{15}{2} \div 9 = \frac{15}{2} \times \frac{1}{9} = \frac{5}{6}$

$\frac{5}{6}$ page per min.

8. Patrick drove 220 miles to his grandmother's house. The trip took him $4\frac{2}{5}$ hours. What is his average speed in miles per hour? (Example 3)

$$\frac{\text{mi}}{\text{hr}} = \frac{220}{4\frac{2}{5}} = \frac{220}{1} \div \frac{22}{5} = \frac{220}{1} \times \frac{5}{22} = 50$$

$\frac{220}{4\frac{2}{5}} = \frac{220}{1} \div \frac{22}{5} = \frac{220}{1} \times \frac{5}{22} = 50$

50 mi per hr.

Write each percent as a fraction in simplest form. (Example 4)

9. $6\frac{2}{3}\%$

$$6\frac{2}{3}\% = \frac{6\frac{2}{3}}{100} = \frac{6\frac{2}{3} \div 100}{100 \div 100} = \frac{20}{3} \div 100 = \frac{20}{3} \times \frac{1}{100} = \frac{20}{300} = \frac{2}{30} = \frac{1}{15}$$

10. $7\frac{1}{2}\%$

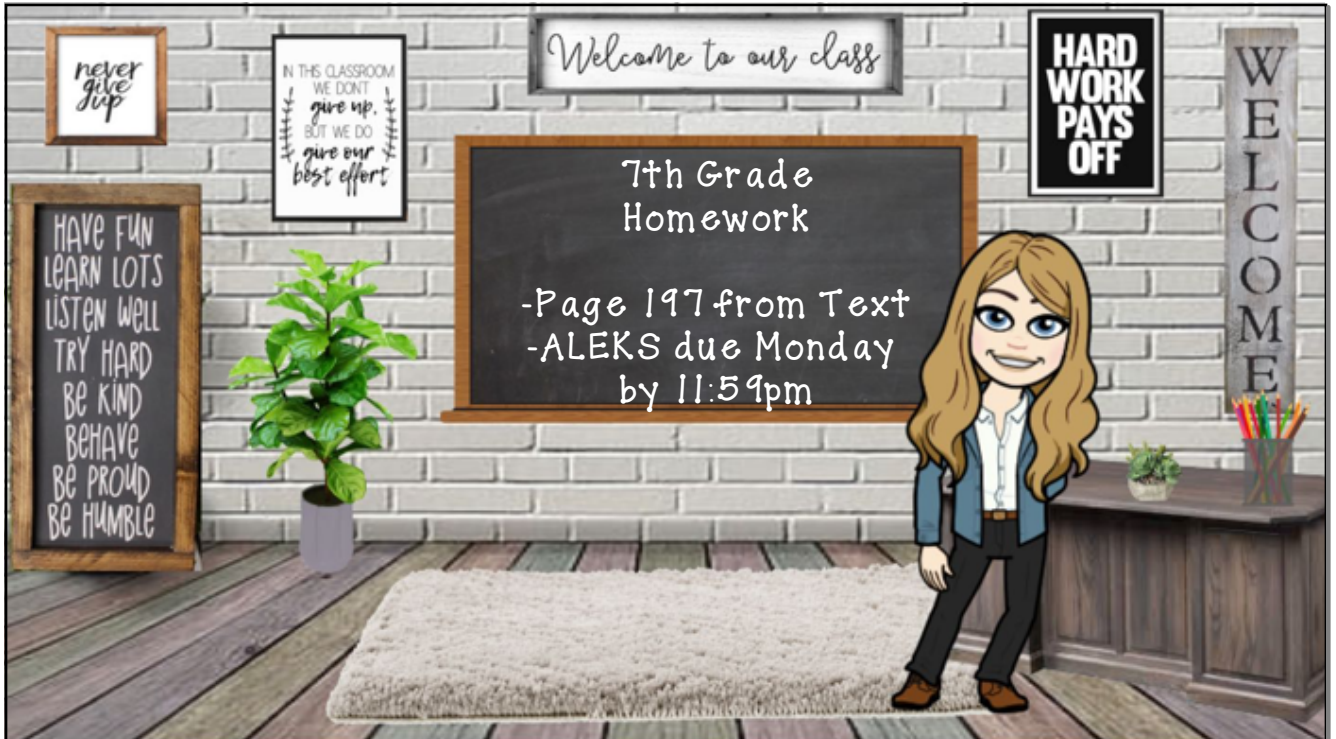
$$7\frac{1}{2}\% = \frac{7\frac{1}{2}}{100} = \frac{15}{2} \div 100 = \frac{15}{2} \times \frac{1}{100} = \frac{15}{200} = \frac{3}{40}$$

11. $10\frac{1}{2}\%$

$$10\frac{1}{2}\% = \frac{10\frac{1}{2}}{100} = \frac{21}{2} \div 100 = \frac{21}{2} \times \frac{1}{100} = \frac{21}{200}$$

12. $15\frac{1}{3}\%$

$$15\frac{1}{3}\% = \frac{15\frac{1}{3}}{100} = \frac{46}{3} \div 100 = \frac{46}{3} \times \frac{1}{100} = \frac{46}{300} = \frac{23}{150}$$



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Simplify. (Examples 1 and 2)

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

14. $\frac{2}{\frac{3}{11}}$

15. $\frac{12}{\frac{3}{5}}$

16. $\frac{1}{\frac{1}{4}}$

17. $\frac{8}{\frac{9}{6}}$

18. $\frac{2}{\frac{5}{9}}$

19. $\frac{\frac{9}{10}}{9}$

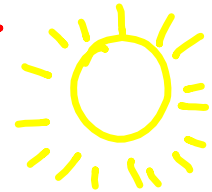
20. $\frac{\frac{4}{5}}{10}$

21. $\frac{\frac{1}{2}}{\frac{1}{4}}$

22. $\frac{\frac{1}{4}}{\frac{7}{10}}$

23. $\frac{\frac{1}{12}}{\frac{5}{6}}$

24. $\frac{\frac{5}{6}}{\frac{5}{9}}$



25. Richard rowed a canoe $3\frac{1}{2}$ miles in $\frac{1}{2}$ hour. What is his average speed in miles per hour? (Example 3)

26. A small airplane used $4\frac{3}{8}$ gallons of fuel to fly a $1\frac{1}{4}$ -hour trip. How many gallons were used each hour? (Example 3)

27. Sally wants to make cookies for her little sister's tea party. Sally is cutting a roll of cookie dough into pieces that are $\frac{1}{2}$ inch thick. If the roll is $11\frac{1}{2}$ inches long, how many cookies can she make? (Example 3)

28. Mary Alice is making a curtain for her kitchen window. She bought $2\frac{1}{2}$ yards of fabric. Her total cost was \$15. What was the cost per yard? (Example 3)

Write each percent as a fraction in simplest form. (Example 4)

29. $56\frac{1}{4}\%$

30. $15\frac{3}{5}\%$

31. $13\frac{1}{3}\%$

32. $2\frac{2}{5}\%$

33. $7\frac{3}{4}\%$

34. $8\frac{1}{3}\%$