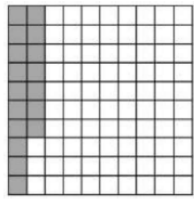Name:_____    Date:_____

# INTRODUCTION TO PERCENTS

SCORE:

_____/ 10

Due at the beginning of class, Friday Jan 7th

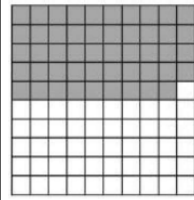**1** Write a ratio and percent to describe the shaded portion of the figure.

$$\frac{17}{100}$$

**17%**

**2** Write a ratio and percent to describe the shaded portion of the figure.
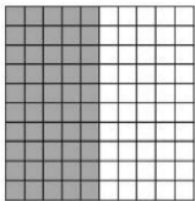
$$\frac{49}{100}$$

**49%**

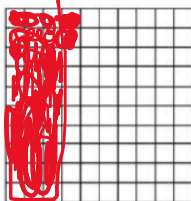**3** Write a ratio and percent to describe the shaded portion of the figure.

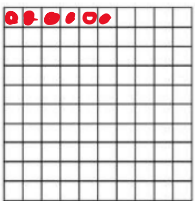$$\frac{50}{100} = \frac{5}{10} = \frac{1}{2}$$

50%

**4** Use the figure below to model 32%. Write the ratio represented by the model.

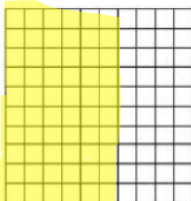$$\frac{32}{100} = \frac{16}{50} = \frac{8}{25}$$

**5** Use the figure below to model 6%. Write the ratio represented by the model.

$$\frac{6}{100} = \frac{3}{50}$$

**6** Use the figure below to model 60%. Write the ratio represented by the model.

$$\frac{60}{100} = \frac{30}{50} = \frac{15}{25} = \frac{3}{5}$$

**7** Jamie randomly selects 100 letter tiles. 45% of the tiles are vowels. How many tiles are vowels?

$$\frac{45}{100}$$

45 tiles are vowels

**8** Jack has a jar of 100 marbles. 59% of the marbles are blue. How many blue marbles are there? How many marbles are not blue?

59 blue marbles
41 not blue

**9** Felicia saved $100 in her bank account. She spends 3% of her money on lunch. How much did she spend on lunch? How much money does she have left

$3 on lunch
$97 left over

**10** Rebecca has 100 math problems to complete for homework this week. She has 60% of the problems left. How many problems has she completed? How many does she have left?

60 problems left to do
40 problems Completed

# PERCENTS AND FRACTIONS

**Due at the beginning of next class, Friday January 7th**

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**1** What is 45% as a fraction in simplest form? *reduce*

$$\frac{45}{100} = \boxed{\frac{9}{20}}$$

**2** What is 95% as a fraction in simplest form?

$$\frac{95}{100} = \boxed{\frac{19}{20}}$$

---

**3** What is 8% as a fraction in simplest form?

$$\frac{8}{100} = \boxed{\frac{2}{25}}$$

**4** Write $\frac{3}{14}$ as a percent. Round your percent to the nearest tenth if necessary.

$$14\overline{\smash{)}3.000} \quad .214$$
$$-28\downarrow$$
$$20$$
$$-14$$
$$60$$
$$-56$$

$$.214 \qquad \boxed{21.4\%}$$

---

**5** Write $\frac{6}{8}$ as a percent. Round your percent to the nearest tenth if necessary.

$$\frac{6}{8} = \frac{3}{4} = \frac{75}{100}$$

$$\boxed{75\%}$$

$$8\overline{\smash{)}6.00} \quad .75$$
$$-56\downarrow$$
$$40$$
$$-40$$
$$0$$

$$.75 \qquad \boxed{75\%}$$

**6** Write $\frac{7}{10}$ as a percent. Round your percent to the nearest tenth if necessary.

$$\frac{7}{10} = \frac{70}{100}$$

$$\boxed{70\%}$$

$$.7 = \boxed{70\%}$$
$$10\overline{\smash{)}7.0}$$
$$-70$$
$$0$$

---

**7** Comparing <, > or =

$$15\% \underline{=} \frac{3}{20} \overset{\times 5}{=} \frac{15}{100}$$
$$\searrow \times 5$$

**8** Comparing <, > or =

$$55\% \underline{<} \frac{5}{7}$$

$$7\overline{\smash{)}5.0} \quad .7$$
$$-49$$
$$1$$

$$.176 = 17.6 = 18\%$$

---

**9** Sean got 19 out of 20 questions correct on his math quiz. What percent of the questions did he get correct?

$$\frac{19}{20} \overset{\times 5}{=} \frac{95}{100}$$
$$\searrow \times 5$$

$$\boxed{95\%}$$

**10** 15 out of 85 6th graders are in honors art. About what percent of students are in honors art? Round your answer to the nearest whole.

$$\frac{15}{85} = \frac{3}{17}$$

*not a factor of 100* ☹

$$.176$$
$$85\overline{\smash{)}15.000}$$
$$-85\downarrow$$
$$650$$
$$-595$$
$$550$$