

Name KEY
Unit 3 Fake Test

For #1-4 simplify all answers

1. $\frac{1}{8} \times \frac{27}{7} = \boxed{\frac{27}{56}}$

2. $4\frac{1}{2} \div 1\frac{1}{3}$

$\frac{9}{2} \div \frac{4}{3} = \frac{9}{2} \times \frac{3}{4} = \boxed{\frac{27}{8}}$

3. $2\frac{3}{4} \div 20$

$\frac{11}{4} \div \frac{20}{1} = \frac{11}{4} \times \frac{1}{20} = \boxed{\frac{11}{80}}$

4. $\frac{6}{7} \times 2\frac{1}{5}$

$\frac{6}{7} \times \frac{11}{5} = \boxed{\frac{66}{35}}$

5. Joe spends $\frac{3}{5}$ of an hour on the computer. He spends $\frac{1}{3}$ of that time playing Minecraft. What fraction of the hour did he spend on Minecraft?

$\frac{3}{5} \cdot \frac{1}{3} = \boxed{\frac{1}{5}}$

36 min - comp
12 min - Minecraft

6. The Lufkin football field's perimeter is $\frac{1}{5}$ of a mile. How many laps would it take to go 6 miles?

$6 \div \frac{1}{5} = \frac{6}{1} \cdot \frac{5}{1} = 30 \text{ laps}$

5 laps = 1 mile

7. Lucy is baking cookies. The recipe calls for $2\frac{1}{2}$ cups of flour. One tablespoon equals $\frac{1}{16}$ of a cup. How many tablespoons of flour does she need?

$2\frac{1}{2} \div \frac{1}{16} = \frac{5}{2} \cdot \frac{16}{1} = \frac{40}{1} = 40 \text{ tablespoons}$

8. Bob's poster is $2\frac{1}{8}$ feet long. The roll of poster paper is $3\frac{1}{2}$ times longer, how long is the roll of paper?

$2\frac{1}{8} \cdot 3\frac{1}{2} = \frac{17}{8} \cdot \frac{7}{2} = \frac{119}{16} = \boxed{7\frac{7}{16} \text{ ft}}$

9. In Lisa's science class, $\frac{2}{9}$ of the class have A's. If there are 36 students in the class, how many students have an A?

$\frac{2}{9} \cdot 36 = \frac{72}{9} = 8$ 8 students

10. Ben has 120 marbles. He gave $\frac{1}{6}$ of them to his friends for \$2.00. How much money did he make?

$\frac{120}{1} \cdot \frac{1}{6} = \frac{120}{6} = 20 \text{ marbles}$
 $20 \cdot 2 = \boxed{40}$

11. What is the greatest whole number less than the value of the following

$$\frac{2 \times 2 \times 2}{5 \times 5 \times 5} = \frac{8}{125}$$

$$\left(\frac{2}{5}\right)^3$$

0

12. $7^2 + 4(18 \div 2) - 9 \times 3$

$$7^2 + 4(9) - 9 \times 3$$

$$49 + 4(9) - 9 \times 3$$

$$49 + 36 - 9 \times 3$$

$$49 + 36 - 27$$

$$85 - 27$$

58

13. $3^? = 81$

$$3^2 = 9$$

$$3^3 = 27$$

$$3^4 = 81$$

4

14. Evaluate in exponent form

$$4^3 \times 4^5 \times 4^7$$

$$(4 \cdot 4 \cdot 4) \cdot (4 \cdot 4 \cdot 4 \cdot 4 \cdot 4) \cdot (4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4)$$

4¹⁵