

6. Multiply or divide mentally:

a. $280,000 \div 700 =$ _____

b. $140 \times 200 =$ _____

7. Change to an improper fraction:

$$3\frac{2}{7} =$$

8. Change to a Mixed Number:

$$\frac{29}{3} =$$

9. Evaluate:

a. $1\frac{1}{2} + 2\frac{3}{5} =$

b. $3\frac{1}{3} - 2\frac{7}{9} =$

c. $\frac{8}{5} \times \frac{3}{4} =$

d. $1\frac{2}{9} \times \frac{1}{3} =$

e. $5\frac{1}{2} \div 1\frac{3}{8} =$

f. $\frac{4}{3} \div \frac{2}{9} =$

10. Express the fraction as a decimal.

a. $\frac{43}{1000} =$ _____

b. $\frac{7}{4} =$ _____

11. Express the decimal as a fraction in simplest form.

a. 1.12 = _____

b. 22.006 = _____

12. Evaluate.

a. $9.2 + 0.897 =$ _____

b. $6 - 0.143 =$ _____

c. $4.9 \times 0.05 =$ _____

d. $1.2 \times 3.5 =$ _____

e. $3.87 \div 0.9 =$ _____

f. $0.3 \div 4 =$ _____

13. Fill in the blanks:

a. $3.45 \times$ _____ $= 34.5$

b. $562.1 \div$ _____ $= 5.621$

14. 8 ones 6 tenths 8 thousandths = _____

15. Convert the following:

a. $1.8 \text{ m} = \underline{\hspace{2cm}} \text{ cm}$

b. $3,750 \text{ mL} = \underline{\hspace{2cm}} \text{ L}$

16. Arrange from least to greatest: $0, -4, 3.5, -1\frac{1}{4}, -1.001$

17. Evaluate: $|-57| = \underline{\hspace{2cm}}$

18. Fill in $<$, $>$, or $=$ to compare.

$|-1.5| \underline{\hspace{1cm}} 1.2$

19. Fill in the missing term in the equivalent ratios:

a. $3 : 5 = \underline{\hspace{1cm}} : 15$

b. $\underline{\hspace{1cm}} : 90 : 18 = 3 : \underline{\hspace{1cm}} : 2$

20. Find the Average of the three weights: 9 lbs, 12 lbs, and 7.6 lbs

21. A computer printer can print 480 pages in 15 minutes. What is the printing rate in pages per minute?

22. A factory can make 18 cars in 8 hours. At this rate, how many cars can the factory assemble in 14 hours?

23. It took Jeannie 6 hours in her car to travel 450 kilometers. What is her average speed in km/h?

24. Fernando rode his bike for 2.5 hours at an average speed of 12 mph. How far did he ride?

25. Express the fraction as a percent

$$\frac{7}{20} = \underline{\hspace{2cm}}$$

26. Express the decimal as a percent

$$0.7 = \underline{\hspace{2cm}}$$

27. Express the percent as a fraction in simplest form.

$$42.5\% = \underline{\hspace{2cm}}$$

28. Express the percent as a decimal.

$$3\% = \underline{\hspace{2cm}}$$

29. Find the following amounts:

a. 10% of 40 = $\underline{\hspace{2cm}}$

b. 30% of 180 = $\underline{\hspace{2cm}}$

c. 75% of 292 = $\underline{\hspace{2cm}}$

d. 14% of 750 = $\underline{\hspace{2cm}}$

e. 110% of 875 = $\underline{\hspace{2cm}}$

Dimensions Math 6A Test

ANSWER KEY

1a) $48 \div 8 - 6 = 0$

1b) $8 + 14 \times 7 = 106$

2) 5^4

3a) 56

3b) 6

3c) 2

4) $8, 16, 24, 32$

5) $1, 2, 3, 4, 6, 8, 12, 24$

6a) 400

6b) $28,000$

7) $\frac{23}{7}$

8) $9\frac{2}{3}$

9a) $4\frac{1}{10}$

9b) $\frac{5}{9}$

9c) $\frac{6}{5}$ OR $1\frac{1}{5}$

9d) $\frac{11}{27}$

9e) 4

9f) 6

10a) 0.043

10b) 1.75

11a) $1\frac{3}{25}$

11b) $22\frac{3}{500}$

12a) 10.097

12b) 5.857

12c) 0.245

12d) 4.2

12e) 4.3

12f) 0.075

13a) 10

13b) 100

14) 8.608

15a) 180 cm

15b) 3.75 L

16) -4 , $-1\frac{1}{4}$, -1.001 , 0 , 3.5 ,

17) 57

18) $|-1.5| > 1.2$

19a) 9

19b) $27 : 90 : 18 = 3 : 10 : 2$

20) 28.6 lbs

21) 32 pages per minute

22) 31.5 cars

23) 75 km/h

24) 30 miles

25) 35%

26) 70%

27) $\frac{17}{40}$

28) 0.03

29a) 4

29b) 54

29c) 219

29d) 105

29e) 962.5