

**ABLE MATH REVIEW**

---

---

Write the value of the underlined digit.

| ten thousands  
| thousands  
| hundreds  
| tens  
| ones  
| .  
| tenths  
| hundredths  
| thousandths  
| ten thousandths  
| hundred thousandths

1a. 326 \_\_\_\_\_

b. 16.56 \_\_\_\_\_

c. 34,687 \_\_\_\_\_

d. 3.097 \_\_\_\_\_

---

---

Round to the nearest hundred.

2a. 51 \_\_\_\_\_

b. 789 \_\_\_\_\_

c. 922 \_\_\_\_\_

c. 3,651 \_\_\_\_\_

---

---

Find each answer. (Watch the operation signs)

3a.

$$\begin{array}{r} 389 \\ + 34 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 9,389 \\ - 8,734 \\ \hline \end{array}$$

c.

$$\begin{array}{r} 271 \\ \times 7 \\ \hline \end{array}$$

d.

$$3 \overline{)64}$$

e.

$$\begin{array}{r} 2,610 \\ + 4,248 \\ \hline \end{array}$$

f.

$$\begin{array}{r} 54,437 \\ - 9,452 \\ \hline \end{array}$$

g.

$$\begin{array}{r} 431 \\ \times 19 \\ \hline \end{array}$$

h.

$$27 \overline{)6,339}$$

**ABLE MATH REVIEW**

4a.

$$\begin{array}{r} 660 \\ \times 264 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 4,550 \\ \times 547 \\ \hline \end{array}$$

c.

$$13 \overline{)961}$$

d.

$$6 \overline{)126}$$

e.

$$\begin{array}{r} 3,065 \\ 610 \\ + \quad 97 \\ \hline \end{array}$$

f.

$$\begin{array}{r} 801 \\ - 682 \\ \hline \end{array}$$

g.

$$45 \overline{)2,165}$$

h.

$$350 \overline{)8,750}$$

---

---

**Simplify. (Reduce the fractions)**

5a.  $\frac{16}{64} =$

b.  $\frac{34}{3} =$

c.  $\frac{7}{42} =$

d.  $\frac{35}{7} =$

e.  $\frac{19}{13} =$

---

---

**Add or subtract. Simplify. (Watch the operation signs)**

6a.  $\frac{5}{7} + \frac{1}{7} =$

b.  $5\frac{7}{8} + 2\frac{3}{4} =$

c.  $4 - \frac{3}{8} =$

d.  $3\frac{2}{9} - \frac{8}{11} =$

**ABLE MATH REVIEW**

---

---

e.  $\frac{3}{5} + \frac{4}{9} =$

f.  $\frac{5}{6} - \frac{3}{4} =$

g.  $7\frac{3}{5} + \frac{3}{8} =$

h.  $5\frac{4}{5} - 4\frac{2}{3} =$

---

---

**Multiply or divide. Use cancellation when possible. Simplify.**

7a.  $\frac{2}{7} \times 15 =$

b.  $3 \div \frac{5}{6} =$

c.  $\frac{4}{7} \times \frac{9}{10} =$

d.  $\frac{7}{9} \div \frac{2}{9} =$

e.  $5\frac{5}{8} \times 1\frac{4}{5} =$

f.  $2\frac{6}{7} \div 4\frac{2}{3} =$

g.  $\frac{6}{7} \times 1 =$

h.  $6\frac{9}{11} \div \frac{3}{9} =$

i.  $\frac{5}{4} \times \frac{4}{5} =$

---

---

**Write each decimal as a fraction or mixed number.**

8a.  $.5 =$  \_\_\_\_\_

b.  $5.25 =$  \_\_\_\_\_

c.  $7.02 =$  \_\_\_\_\_

d.  $.625 =$  \_\_\_\_\_

**ABLE MATH REVIEW**

---

---

Write each fraction as a decimal.

9a.  $4\frac{7}{100} =$  \_\_\_\_\_

b.  $\frac{6}{15} =$  \_\_\_\_\_

c.  $\frac{37}{25} =$  \_\_\_\_\_

d.  $\frac{8}{1000} =$  \_\_\_\_\_

---

---

Find each answer. Write zeros as needed.

10a.

$$\begin{array}{r} 7.32 \\ + 2.58 \\ \hline \end{array}$$

b.

$$\begin{array}{r} 58.3 \\ - 2.86 \\ \hline \end{array}$$

c.

$$\begin{array}{r} 0.0098 \\ \times 721.5 \\ \hline \end{array}$$

d.

$$0.7 \overline{)34.02}$$

e.

$$\begin{array}{r} 35.6 \\ \times 2.49 \\ \hline \end{array}$$

f.

$$0.50 \overline{)564.7}$$

g.

$$\begin{array}{r} 70.10 \\ \times 45 \\ \hline \end{array}$$

h.

$$2.4 \overline{)3.864}$$

i.  $3.456 + 60.3 =$

j.  $5.035 - 0.0346 =$

k.  $780.23 \times 1.045 =$

l.  $120.4 \div 0.32 =$

**ABLE MATH REVIEW**

---

---

**Change each percent to a decimal and then to a fraction.**

**11a.**  $4\% = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**b.**  $74\% = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**c.**  $45\% = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**d.**  $168\% = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**Change each fraction to a decimal and then to a percent.**

**12a.**  $\frac{3}{4} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**b.**  $\frac{9}{16} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**c.**  $\frac{1}{7} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

**d.**  $\frac{5}{10} = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$

---

---

**Find each answer.**

**13a.** 65% of what number is 26

**b.** What percent of 50 is 10?

**c.** 41% of 320 is

**d.** 75% of 36 is

**e.** 20 is 80% of what number?

**f.** 18% of what number is 9

**g.** What percent of 100 is 33?

**h.** 240 is 80% of what number?

**ABLE MATH REVIEW**

---

---

**Simplify.**

**14a.**  $-5 + 2 =$

**b.**  $-13 - (-4) =$

**c.**  $24 \times (-3) =$

**d.**  $-66 \div (-3) =$

**e.**  $8 + 3 \times 4 =$

**f.**  $24 \div 6 - 3 =$

**g.**  $8 - 6 \times 12 =$

**h.**  $(19 + 17) \div 4 =$

---

---

**Evaluate each expression if  $m = -3$ ,  $n = 6$ , and  $p = 4$ .**

**15a.**  $p + 7n =$

**b.**  $mn - 14 =$

**c.**  $n(4 + 3p) =$

**d.**  $\frac{3np + 6}{n} =$

**Solve.**

**16a.**  $12 + x = 38$

**b.**  $x - 9 = 22$

**c.**  $10 + 5x = 30$

**d.**  $7x = 56$

**e.**  $6x - 2x = 12$

**f.**  $9x + 4x = 65$

**g.**  $-2 - 2x = 78 - 6x$

**h.**  $3x + 4 = 4x + 1$

---

---

For additional help visit the following websites:

[www.thatquiz.com](http://www.thatquiz.com)

[www.helpwithfractions.com](http://www.helpwithfractions.com)

[www.math.com](http://www.math.com)

**ABLE MATH REVIEW**

**ANSWER KEY**

- 1a)** three hundreds      **b)** six hundredths      **c)** four thousands      **d)** zero tenths
- 2a)** 100      **b)** 800      **c)** 900      **d)** 3,700
- 3a)** 423      **b)** 655      **c)** 1,897      **d)** 21 r1      **e)** 6,858      **f)** 44,985      **g)** 8,189
- h)** 234 r21
- 4a)** 174,240      **b)** 2,488,850      **c)** 73 r12      **d)** 21      **e)** 3,772      **f)** 119      **g)** 48 r5      **h)** 25
- 5a)**  $\frac{1}{4}$       **b)**  $11\frac{1}{3}$       **c)**  $\frac{1}{6}$       **d)** 5      **e)**  $1\frac{6}{13}$
- 6a)**  $\frac{6}{7}$       **b)**  $8\frac{5}{8}$       **c)**  $3\frac{5}{8}$       **d)**  $2\frac{49}{99}$       **e)**  $1\frac{2}{45}$       **f)**  $\frac{1}{12}$       **g)**  $7\frac{39}{40}$
- h)**  $1\frac{2}{15}$
- 7a)**  $4\frac{2}{7}$       **b)**  $3\frac{3}{5}$       **c)**  $\frac{18}{35}$       **d)**  $3\frac{1}{2}$       **e)**  $10\frac{1}{8}$       **f)**  $\frac{30}{49}$       **g)**  $\frac{6}{7}$
- h)**  $20\frac{5}{11}$       **i)** 1
- 8a)**  $\frac{1}{2}$       **b)**  $5\frac{1}{4}$       **c)**  $7\frac{1}{50}$       **d)**  $\frac{5}{8}$
- 9a)** 4.07      **b)** .4      **c)** 1.48      **d)** .008
- 10a)** 9.90      **b)** 55.44      **c)** .70707      **d)** 48.6      **e)** 885.444      **f)** 1129.4      **g)** 3154.5
- h)** 1.61      **i)** 63.756      **j)** 5.0004      **k)** 815.34035      **l)** 376.25
- 11a)** .04 and  $\frac{1}{25}$       **b)** .74 and  $\frac{37}{50}$       **c)** .45 and  $\frac{9}{20}$       **d)** 1.68 and  $1\frac{17}{25}$
- 12a)** .75 and 75%      **b)** .5625 and 56.25%      **c)** .1429 and 14.29%      **d)** .5 and 50%
- 13a)** 40      **b)** 20%      **c)** 131.2      **d)** 27      **e)** 25      **f)** 50      **g)** 33%      **h)** 300
- 14a)** -3      **b)** -9      **c)** -72      **d)** 22      **e)** 20      **f)** 1      **g)** -64      **h)** 9
- 15a)** 46      **b)** -32      **c)** 96      **d)** 13
- 16a)** 26      **b)** 31      **c)** 4      **d)** 8      **e)** 3      **f)** 5      **g)** 20      **h)** 3

## ABLE MATH REVIEW

### EXAMPLE PROBLEMS

#### Section

**5) Reducing Fractions:** (find the biggest number that can go into both the top and bottom number, or just start with any number that will go into both and continue to simplify until it can't be reduced anymore)

**Example 1:**  $\frac{16}{64} \div 2 = \frac{8}{32}$ , (it can still be reduced, divide by 2) =  $\frac{4}{16}$

It will continue to reduce to  $\frac{1}{4}$ , which is the answer.

Or we could have divided both the top and bottom by 16 to begin with since 16 goes into itself and into 64 evenly;

$$\frac{16}{64} \div 16 = \frac{1}{4}$$

**Answer** =  $\frac{1}{4}$

**Example 2:**  $\frac{9}{4}$  (This is an **improper fraction**, meaning the top #, the numerator, is greater than or equal to the bottom #, the denominator. This will reduce into a **mixed number**)

$$= 4 \overline{)9} = (4 \text{ goes into } 9 \text{ only two times equaling } 8. \text{ And } 9 - 8 \text{ equals } 1) \quad 4 \overline{)9} = 2 \frac{1}{4}$$

(We are left with a remainder 1; put the 1 on the 4 =  $\frac{1}{4}$ )

**Answer** =  $2 \frac{1}{4}$

**Example 3:**  $3 \frac{1}{4}$  (Change a **mixed number** to an **improper fraction**. Start first by multiplying

the whole number '3' by the denominator '4' and then add that number to the numerator '1'. So we get ---  $\frac{3 \times 4 + 1}{4} = \frac{13}{4}$

**Answer** =  $\frac{13}{4}$

---

**There a 3 types of fractions:**

**Normal** =  $\frac{1}{4}$

**Improper** =  $\frac{9}{4}$

**Mixed number** (whole number and a normal fraction) =  $2 \frac{1}{4}$

## ABLE MATH REVIEW

**6) Adding and subtracting fractions:** (Before adding or subtracting we must make sure the denominators are the same)

**Example 1:**  $\frac{1}{4} + \frac{1}{8} =$  First change **denominator** to be equal =  $\frac{1}{4} \times \frac{2}{2} = \frac{2}{8}$

Now just add the **numerators**  $\frac{2}{8} + \frac{1}{8} = \frac{3}{8}$

**Answer:**  $\frac{3}{8}$

**Example 2:**  $\frac{3}{4} - \frac{2}{3} =$  Again first get equal denominators, both 3 and 4 can go into 12, so multiply each fraction by the number that will make their denominators equal to 12.

$\frac{3}{4} \times \frac{3}{3} = \frac{9}{12}$  and  $\frac{2}{3} \times \frac{4}{4} = \frac{8}{12}$  now subtract  $\frac{9}{12} - \frac{8}{12} = \frac{1}{12}$

**Answer:**  $\frac{1}{12}$

**7) Multiplying and dividing fractions:** (When **multiplying**, just multiply straight across and reduce. When **dividing**, flip the second fraction, change sign to a multiplication sign, then multiply and reduce.)

**Example 1:**  $\frac{4}{5} \times \frac{7}{8} =$  multiply straight across  $\frac{4 \times 7}{5 \times 8} = \frac{28}{40}$  now reduce, =  $\frac{7}{10}$

**Answer:**  $\frac{7}{10}$

**Example 2:**  $\frac{3}{5} \div \frac{6}{7} =$  flip second fraction and change sign =  $\frac{3}{5} \times \frac{7}{6}$  multiply =  $\frac{21}{30}$  and

reduce =  $\frac{7}{10}$

**Answer:**  $\frac{7}{10}$

**Example 3:**  $3\frac{5}{8} \times \frac{3}{5} =$  first change the mixed number to an improper fraction =  $\frac{29}{8} \times \frac{3}{5}$  now

multiply and change back to mixed number =  $\frac{87}{40} = 2\frac{7}{40}$

**Answer:**  $2\frac{7}{40}$

**ABLE MATH REVIEW**

**10) Decimals:** (Adding, subtracting, multiplying and dividing decimals.)

**Example 1:**  $4.2 - 0.64$  (when subtracting or adding just line up the decimals, add any zeros if necessary, and just add or subtract)

$$\begin{array}{r} 4.20 \\ - 0.64 \\ \hline \end{array}$$

**Answer:** = 3.56

**Example 2:**  $4.2 \times 0.64$  (Count the number of places behind the decimals, '3', remember that number, then just multiply like normal and add the decimal back in the number of places you counted before, '3')

$$\begin{array}{r} 4.2 \\ \times .64 \\ \hline 168 \\ 2520 \\ \hline 2688 \end{array}$$

= 2688 - now move the decimal to the left '3' spaces = 2.688

**Answer:** 2.688

**Example 3:**  $4.2 \div 0.64$  (We can't divide by a decimal, so first move the decimal to the right as many spaces as needed to get rid of the decimal for the number we're dividing by '.64'. We must then move the decimal on the other number, '4.2' to the right just as many times as we moved the decimal on the first number '.64')

$.64 \overline{)4.2}$  = (We move the decimal on the .64 to the right 2 times to get rid of the decimal. We must also move the decimal on the 4.2 to the right 2 times)

$$= 64 \overline{)420} = 64 \overline{)420.0000} \begin{array}{r} 6.5625 \end{array}$$

**Answer:** 6.5625

## ABLE MATH REVIEW

**13) Percents:** (percents can be solved a number of different ways; here we will just show a few)

- **Tip 1:** **of** stands for 'multiplication' and **is** stands for '='
- **Tip 2:** Change % to decimal – move % sign **twice** to the **left**:  $30\% = .3$   
Change decimal to % - move decimal **twice** to the **right**:  $1.34 = 134\%$

**Example 1:** 41% of 320 is? (**Tip 1:** Write the problem out as follows:  $41\% \times 320 = ?$ )

**Tip 2:** Change the percent to a decimal and multiply:  $.41 \times 320 = ?$

- Count all spaces behind the decimal '**2**', multiply, and move the decimal to the left that many spaces in the final answer.

$$\begin{array}{r} \phantom{\times} \phantom{.} 3 \phantom{.} 2 \phantom{.} 0 \\ \times \phantom{.} \phantom{.} 4 \phantom{.} 1 \\ \hline \phantom{\times} 3 \phantom{.} 2 \phantom{.} 0 \\ 1 \phantom{.} 2 \phantom{.} 8 \phantom{.} 0 \phantom{.} 0 \\ \hline 1 \phantom{.} 3 \phantom{.} 1 \phantom{.} 2 \phantom{.} 0 \end{array}$$

**Answer:** = 131.2

**Example 2:** 30% of what number is 45?

- rewrite the problem out:  $.3 \times ? = 45$

- divide both sides by .3:  $\frac{.3 \times ?}{.3} = \frac{45}{.3}$  --- .3s cancel out on the left hand side, and we're

left with:  $? = \frac{45}{.3}$  ----- now divide

$$.3 \overline{)45} = \text{move the decimals and divide } 3 \overline{)450} = 150$$

**Answer:** 150

**Example 3:** What percent of 60 is 15?

- rewrite the problem out:  $?\% \times 60 = 15$

- divide both sides by 60:  $\frac{?\% \times 60}{60} = \frac{15}{60}$  --- 60's on left hand side cancel out and that

gives us:  $?\% = \frac{15}{60}$  --- now divide =  $60 \overline{)15} = .25$  change decimal to a % = 25%

**Answer:** 25%