Education Improvement Internet Library has free material for teachers, administrators, and parents.

Our 28 Free Internet Libraries have academic and career materials for students, teachers, and professionals.

Appendix 2 Pretest and Posttest Solutions

Our Student Internet Library has free material for students, teachers, and parents.

Education Internet Library covers the economics of education, reforming education ...

Pretest Solutions

These pretest solutions have been provided to help students understand how to do those pretest problems answered incorrectly. If looking at the solution does not make the math required to do the problem clear, study the learning unit that matches the problem's number.

1) Which number is six thousand two hundred nine?

A) 6,290 B) 6,209

C) 6,909 D) 6,299 Answer B

2) Round 5,345 to the nearest hundred.

5,300

3A) $36 + 472 + 8 =$

$$\begin{array}{r} 36 \\ 472 \\ +\ 8 \\ \hline 516 \end{array}$$

3B) $502 - 58 =$

$$\begin{array}{r} 502 \\ -\ 58 \\ \hline 444 \end{array}$$

4A) $(206)(35) =$

$$\begin{array}{r} 206 \\ \times\ 35 \\ \hline 1030 \\ 618 \\ \hline 7{,}210 \end{array}$$

4B)

$$\begin{array}{r} 1,091 \\ 56\overline{)6\,1\,0\,9\,6} \\ 56 \\ \hline 50 \\ 00 \\ \hline 509 \\ 504 \\ \hline 56 \\ 56 \\ \hline 0 \end{array}$$

5) Simplify

$24 + (6 - 3)(4) - 5^2$

$24 + (6 - 3)(4) - 5^2$

$24 + (3)(4) - 25$

$24 + 12 - 25$

$36 - 25$

11

6) Which of the following is not a prime number?

A) 7 B) 11 C) 13 D) 15

Answer D

7) Which of the following is less than $\frac{3}{4}$?

A) $\frac{3}{5}$ B) $\frac{4}{5}$

C) $\frac{12}{16}$ D) $\frac{13}{16}$

Fifths are smaller than fourths so 3/5 is smaller than 3/4.

Answer A

8) Write an equivalent fraction for $\frac{3}{5}$.

$\frac{3}{5} = \frac{}{20}$

$\frac{3}{5} = \frac{3\times4}{5\times4} = \frac{12}{20}$

9) $\frac{3}{7} + \frac{2}{7} =$

$\frac{3+2}{7} = \frac{5}{7}$

10) $\frac{8}{9} - \frac{4}{6} =$

$\frac{8}{9} = \frac{8\times2}{9\times2} = \frac{16}{18}$

$-\frac{4}{6} = \frac{4\times3}{6\times3} = -\frac{12}{18}$

$\frac{4}{18} = \frac{2}{9}$

11) $\frac{21}{4} \div \frac{7}{8} =$

$= \frac{\overset{3}{\cancel{21}}}{\underset{1}{\cancel{4}}} \times \frac{\overset{2}{\cancel{8}}}{\underset{1}{\cancel{7}}}$

$= 6$

12) $4\frac{1}{4} - 2\frac{1}{3} =$

$4\frac{1}{4} = 4 + \frac{1\times3}{4\times3} = 4\frac{3}{12} = 3\frac{15}{12}$

$-2\frac{1}{3} = -2 + \frac{1\times4}{3\times4} = -2\frac{4}{12}$

$1\frac{11}{12}$

Note: Borrowing was required.

13A) $25 \times 3\frac{2}{5} =$

$= \frac{\overset{5}{\cancel{25}}}{1} \times \frac{17}{\underset{1}{\cancel{5}}}$

$= 85$

13B) $6 \div \frac{3}{7} =$

$= \frac{6}{1} \div \frac{3}{7}$

$= \frac{\overset{2}{\cancel{6}}}{1} \times \frac{7}{\underset{1}{\cancel{3}}}$

$= 14$

14) Which of the following is smallest?

A) 56.186
B) 56.086
C) 56.400
D) 56.350

Answer B

15) Round 3456.3764 to the nearest hundredth.

3,456.38

16A) 7.4 + 63.44 + 22.9 + 12.015 =

```
  1 1 1
  07.400
  63.440
+ 22.900
  12.015
 105.755
```

16B) $4.3 \times 6.27 =$

```
  6.27
× 4.3
 1881
2508
26.961
```

17)

```
.4 ) 56
     1 4 0.
.4.) 5 6. 0.
     4
     1 6
     1 6
       0 0
       0 0
         0
```

18) A class of 24 students has 14 males. Write the ratio of males to the full class.

14:24 or $\frac{14}{24} = \frac{7}{12}$

19) Choose the correct symbol.(>, <, =)

$\frac{3}{7}$ ___ $\frac{9}{21}$

3×21 ? 7×9

$63 = 63$

$\frac{3}{7} = \frac{9}{21}$

20) Solve for x.

$\frac{3}{8} = \frac{x}{24}$

$(3)(24) = (8)(x)$

$8x = 72$

$x = 9$

21A) Write 1/5 as a percent.

$\frac{1}{5} \times \frac{100\%}{1} = \frac{100\%}{5} = 20\%$

21B) Write .6 as a percent.

$.6 \times 100\% = 60\%$

22A) Write 45% as a fraction.

$(45)(\frac{1}{100}) = \frac{45}{100}$

$\frac{45}{100} = \frac{45 \div 5}{100 \div 5} = \frac{9}{20}$

22B) Write 8% as a decimal.

$8 \times .01 = .08$

23A) What is 7% of 40?

$\frac{7}{100} = \frac{x}{40}$

$(7)(40) = (100)(x)$

$280 = 100x$

$x = 2.8$

23B) 20 is 40% of what number?

$\frac{40}{100} = \frac{20}{x}$

$40x = (100)(20)$

$40x = 2,000$

$x = 50$

23C) 8 is what percent of 40?

$\frac{x}{100} = \frac{8}{40}$

$40x = (100)(8)$

$40x = 800$

$x = 20\%$

24A) If something increases from 20 to 30, what is the percent increase?

change = 30 - 20 = 10

$\frac{x}{100} = \frac{10}{20}$

$20x = (100)(10)$

$20x = 1,000$

$x = 50\%$

24B) What is the result when 30 is decreased by 25%?

use a proportion to determine change

$\frac{25}{100} = \frac{x}{30}$

$(25)(30) = 100x$

$750 = 100x$

$x = 7.5$

answer is $30 - 7.5 = 22.5$

25A) $(12)^2 =$

$$\begin{array}{r} 12 \\ \times 12 \\ \hline 24 \\ 12 \\ \hline 144 \end{array}$$

25B) $(.4)^2 =$

$$\begin{array}{r} .4 \\ \times .4 \\ \hline .16 \end{array}$$

25C) $\sqrt{64} =$

8

Note: 8 x 8 = 64

25D) $\sqrt{.09} =$

.3

Note: .3 x .3 = .09