# HESI V2 MATH

1. A nurse is reviewing the daily intake and output (I&O) of a patient consuming a clear diet. The drainage bag denotes a total of 1,500 mL for the past 24 hours. The total intake is: 3 6oz cups of coffee 1 16-oz serving of clear soup 2 pints of water consumed throughout the day How much is the deficit in milliliters? 480 mL

2. A nurse works in the military hospital from 1300 to 2000. How many hours does this nurse work?
   A. 8 hours
   B. 11 hours
   C. 7 hours
   D. 12 hours

3. What temperature in Celsius is 98.6 degrees Fahrenheit? (Enter numeric value only) 37 Celsius

4. A newborn weights 3,459 grams. There are 453.59 grams per pound. What is the infant's weight in pounds and ounces?

   A. 7lbs 10oz.
   B. 10lbs 7oz.
   C. 13lbs 3 oz.
   D. 3 lbs 13 oz.

5. What kind of number system is commonly used in the United States?
   A. Tertiary
   B. Decimal
   C. Napoleonic
   D. Binary

6. A women received a bottle of perfume as a present. The bottle contains 3/4 oz of perfume. How many milliliters is this? (Enter numeric value only.) 22.5 mL

7. The metric system of measurement was developed in France during Napoleon's reign. It is based on what multiplication factor?
   A. The length of Napoleon's forearm
   B. 2

8. How many meters are in 2 kilometers? (Enter numeric value only.) 2000 meters

   1meter = 1000 kilometers———————→ 2x1000= 2000

9. How many kilograms are in 2000 grams? (Enter numeric value only.) 2 kilograms

   Kg   g    mg  (move 3 times to the right or left)
   (L)    to    (s)   ex: 2000=2   or   2=2000

10. To convert pounds to kilograms, what factor is used? 2.2

   1   pound = 2.2 kilogram

10. A teacher's aide is preparing a snack for the class. In order to prepare the powdered drink, the aide must convert the directions to metric. The directions say, "Dilute contents of package in 3 quarts of water." The aide has a measuring device marked in liters. How many liters of water should be used? (Enter numeric value only. If rounding is required, round to the nearest tenth.)

**Version 1 - HESI**

**Convert 5 3/4 to a decimal. Round to the nearest tenth.**   $\dfrac{4\,x\,5+4}{4}$

$¿\dfrac{23}{4}\,5.75\,round\,¿\,the\,nearest\,tenth\,5.8$

**5.75**

**5.7**

**6**

**5.8**

**A warehouse worker ships 9 boxes each day. Every box must contain 3 shipping labels. How many shipping labels does the worker need each day?** 9 x 3 = 27

**7**

**3**

**27**

**24**

**2.5:150 ::20:x=**   $\dfrac{2.5}{150}=\dfrac{20}{x}=20\,x\,150=3000\div2.5=1200$

**X=3000**

**X=1000**

**X=1500**

**X=1200**

**What is 80% of 55?** .80 x 55 = 44

**45**

**44**

**40**

**39**

**3.44 divided by 0.6=** $3.44 \div 0.6 = 5.73$

**11.41**

**5.73**

**2.33**

**0.57**

**Solve if x=11. x+44/2x =** $11 + 44 \div 2(11) \rightarrow 11 + 44 \div 22 \rightarrow 11 + 2 = 13$

**33**

**2.5**

**13**

**55/22**

**4 7/8 divided by 1 1/6=**

$$\frac{8x4+7}{8} \div \frac{6x1+1}{6} \rightarrow \frac{39}{8} \div \frac{7}{6} \rightarrow \frac{39}{8} x \frac{6}{7} \rightarrow \frac{39}{4} x \frac{3}{7} = \frac{117}{28} \rightarrow 117 \div 28 = 4\frac{5}{28}$$

**4& 6/8**

**4& 7/8**

**5& 8/14**

**4 & 5/28**

**Add. 6 3/4 + 8 1/6=** $\frac{4x6+3}{4}$ +

$$\frac{6x8+1}{6} \rightarrow \frac{27}{4} + \frac{49}{6} \rightarrow \frac{27x6}{4x6} + \frac{49x4}{6x4} \rightarrow \frac{162}{24} + \frac{196}{24} \rightarrow \frac{358}{24} \rightarrow 358 \div 24 = 14\frac{22}{24} \rightarrow reduce\ 14\frac{11}{12}$$

**14 & 11/12**

**12& 3/24**

**35/6**

**14& 2/5**

**Solve for x. x/250=3/500 =** $\dfrac{x}{250}=\dfrac{3}{500}=3\,x\,250=750\div500=1.5$

**1.5**

**25.5**

**1500**

**2.5**

**A dice is rolled. What is the probability of getting 5?** $\dfrac{1}{6}=\dfrac{x}{100}=1\,x\,100=100\div6=16.6\%$

**50%**

**20%**

**16.6%**

**83.3%**

**Convert to metric: 7 gram = x mg = (large – move decimal 3x to the right) Km**

$small-move\,the\,decimal\,3\,x$

$\overset{\displaystyle¿}{¿}$

**7 g = 7.0 move 3x to the left 7,000mg**

$\rightarrow m\rightarrow mm\rightarrow mcm\left(small\right)\vee g\rightarrow L\rightarrow m¿$

**0.007mg**

**7,000 mg**

**0.0007mg**

**700mg**

**Sally eats 3/5 of her lunch. John eats 75%. Who ate more? Sally -** 3 $\div5=0.6\wedge John-.75$

**John**

**Sally**

**Add 1/4 + 3/8. =** $\dfrac{1}{4}+\dfrac{3}{8}\rightarrow\dfrac{1\,x\,2}{4\,x\,2}+\dfrac{3}{8}\rightarrow\dfrac{2}{8}+\dfrac{3}{8}=\dfrac{5}{8}$

**4/12**

**1/3**

**5/8**

**1/2**

**How many ounces in 8 1/4 pints?** 1 pint = 16oz $\quad \frac{4 \times 8 + 1}{4} \rightarrow \frac{33}{4} \times 16$ =

$\frac{528}{4} \rightarrow 528 \div 4 = 132$

**128 oz**

**2.25 oz**

**132oz**

**136oz**

**Subtract 5/6 - 3/4.** $\quad \frac{5}{6} - \frac{3}{4} \rightarrow \frac{5 \times 2}{6 \times 2} - \frac{3 \times 3}{4 \times 3} \rightarrow \frac{10}{12} - \frac{9}{12} = \frac{1}{12}$

**1**

**1/12**

**2/24**

**1/2**

**Add 2/3 + 1/6 + 2/5.** $\quad \frac{2}{3} + \frac{1}{6} + \frac{2}{5} \rightarrow \frac{2 \times 10}{3 \times 10} + \frac{1 \times 5}{6 \times 5} + \frac{2 \times 6}{5 \times 6} \rightarrow \frac{20}{30} + \frac{5}{30} + \frac{12}{30} = \frac{37}{30} \rightarrow 37 \div 30 = 1 \frac{7}{30}$

**1/3**

**2/5**

**1 & 7/30**

**1 & 1/15**

**A farmers productions statistics finds that it takes 2 chickens to produce 6 eggs in 24 hours. How many chickens will be needed to produce 24 eggs in 24 hours?**

$\frac{2}{6} = \frac{x}{24} \rightarrow 2 \times 24 = 48 \div 6 = 8 \, chickens$

**3 chickens**

**8 chickens**

**12 chickens**

**4 chickens**

**Subtract 28 3/4 - 5 5/6.** $\dfrac{4 \times 28 + 3}{4}$ -

$\dfrac{6 \times 5 + 5}{6} \to \dfrac{115}{4} - \dfrac{35}{6} \to \dfrac{115 \times 6}{4 \times 6} - \dfrac{35 \times 4}{6 \times 4} \to \dfrac{690}{24} - \dfrac{140}{24} = \dfrac{550}{24} \to 550 \div 24 = 22\dfrac{22}{24} \; reduce \; 22\dfrac{11}{12}$

**23 & ½**

**22**

**22 & 11/12**

**34 & 1/12**

**Add 7/8 + 9/10 + 6/5 <mark>as mixed.</mark>**

$\dfrac{7}{8} + \dfrac{9}{10} + \dfrac{6}{5} \to \dfrac{7 \times 5}{8 \times 5} + \dfrac{9 \times 4}{10 \times 4} + \dfrac{6 \times 8}{5 \times 8} \to \dfrac{35}{40} + \dfrac{36}{40} + \dfrac{48}{40} = \dfrac{119}{40} \to 119 \div 40 = 2\dfrac{39}{40}$

**3 & 39/40**

**22/23**

**2& 39/40**

**3 & 22/23**

**A mother changes her baby <mark>6 times</mark> a day. How many diapers will be needed in a <mark>year</mark>?** 6 x 365 = 2190

**2160 diapers**

**2100 diapers**

**2190 diapers**

**6000 diapers**

**Subtract 2 5/8 - 7/8 and reduce.** $\dfrac{8 \times 2 + 5}{8} - \dfrac{7}{8} \to \dfrac{21}{8} - \dfrac{7}{8} = \dfrac{14}{8} \to \dfrac{7}{4} \to 7 \div 4 = 1\dfrac{3}{4}$

**1&5/8**

**1&1/4**

**1&6/8**

**1 & 3/4**

**A dice is rolled, what's the probability of an odd number?**

$\dfrac{1}{6} = \dfrac{x}{3} \to 1 \times 3 = 3 \div 6 = 0.5 \times 100\% \to 50\%$

**50%**

**75%**

**16.7%**

**33%**

**32 divided by 8/9.** $\boxed{32} \div \frac{8}{9} \rightarrow 32 \, x \, \frac{9}{8} = \frac{288}{8} \rightarrow 288 \div 8 = 36$

**36**

**4&1/9**

**28&4/9**

**4**

**40.3 divided by 4.8.**

**0.84**

**0.084**

**8.4**

**84**

**Ratio and proportion 0.1:10::x:400 =** $\frac{0.1}{10} = \frac{x}{400} \rightarrow 0.1 \, x \, 400 = 40 \div 10 = 4$

**25**

**5**

**50**

**4**

**\*A cake provides 24 servings. How many cakes do you need for a class of 70 and staff of 3?**
70+3=73 $\rightarrow 1 \, cake = ¿$ 24 $\rightarrow 2 \, cakes = 48 \rightarrow 3 \, cakes = 72 \rightarrow 4 \, cakes = 96$

**4**

**2**

**3**

**5**

**A female ran a 24 mile course. Her first 6 miles she ran in 1 hour. The second set of 6 miles in 1.2 hours. The third set of 6 miles in 1.5 hours. The fourth set of 6 miles in 1.6 hours. How did long did it take her to complete the course?** 1 + 1.2 + 1.5 + 1.6 = 5.3 hours

**5.3 hours**

**5.4 hours**

**4 hours**

**5 hours**

**What is 54% of $789.56=** .54 x 789.56 = **$426.36**

**$426.37**

**$363.20**

 **$426.36**

**$526.38**

**1/9 divided by 2/3 =** $\frac{1}{9} \div \frac{2}{3} \rightarrow \frac{1}{9} x \frac{3}{2} \rightarrow \frac{1}{3} x \frac{1}{2} = \frac{1}{6}$

**1/6**

**3/18**

**1/3**

**2/3**

**How many liters in 300 milliliters?** L to mL move the decimal 3x to the left ( 300mL = 0.3liters)

**0.3 liters**

**3 liters**

**0.03 liters**

**3.30 liters**

**Ratio and proportion 18:x::10:300 =**

**540**

**16.6**

**180**

**30**

**Subtract 12 - 7 4/5. =** $12 - 7\frac{4}{5} \rightarrow 12 - \frac{5\,x\,7+4}{5} \rightarrow 12 - \frac{39}{5} \rightarrow 12\,x\frac{5}{5} - \frac{39}{5} = \frac{60}{5} - \frac{39}{5} = \frac{21}{5} = 4\frac{1}{5}$

**5&1/5**

**4&4/5**

**5&4/5**

**4 & 1/5**

**Find x. 120:x::40:0.5 =** $\dfrac{120}{x}=\dfrac{40}{0.5} \rightarrow 120\,x\,0.5=60 \div 40=1.5$

**16**

**0.167**

**60**

**1.5**

**5 & 3/4 divided by 1/2 reduce.** $\dfrac{4\,x\,5+x\,3}{4} \div \dfrac{1}{2} \rightarrow \dfrac{23}{4}\,x\,\dfrac{2}{1} \rightarrow \dfrac{23}{2}\,x\,\dfrac{1}{1}=\dfrac{23}{2} \rightarrow 23 \div 2=11\dfrac{1}{2}$

**5&1/2**

**2&3/8**

**11 & ½**

**18**

**Ratio and proportion 1.2:x::14:42=** $\dfrac{1.2}{x}=\dfrac{14}{42}=1.2\,x\,42=50.4 \div 14=3.6$

**0.6**

**3.6**

**1.2**

**2.4**

**Find x 40:5=60:x =** $\dfrac{40}{5}=\dfrac{60}{x}$ → **5 x 60 = 300** $\div 40=7.5$

**7.5**

**1.5**

**12**

**Ratio and proportion 15:2000::x:200 =** $\dfrac{15}{2000}=\dfrac{x}{200} \rightarrow 15\,x\,200=¿$ **3000** $\div 2000=1.5$

**1.5**

**7,777**

**0.15**

**If quotient is 4, and 12 is the dividend, what is the divisor?** $?x4=12$

**X**

**4**

**3**

**12**

**Subtract 7 7/10 - 3 4/5 =**

$$\frac{10\,x\,7+7}{10}-\frac{5\,x\,3+4}{5} \to \frac{77}{10}-\frac{19}{5} \to \frac{77}{10}-\frac{19\,x\,2}{5\,x\,2} \to \frac{77}{10}-\frac{38}{10}=\frac{39}{10} \to 39\div10=3\frac{9}{10}$$

**4&1/10**

**11&5/10**

**4&3/5**

**3 & 9/10**

**Change 0.26 to a fraction =** $\frac{26}{100} \to \frac{26\div2}{100\div2}=\frac{13}{50}$

**7/8**

**13/50**

**26/100**

**2 6/10**

**Multiply 4/9 x 1 4/5 x 2/5 =** $\frac{4}{9}\,x\,1\frac{4}{5}\,x\,\frac{2}{5} \to \frac{4}{9}\,x\,\frac{5\,x\,1+4}{5}\,x\,\frac{2}{5} \to \frac{4}{9}\,x\,\frac{9}{5}\,x\,\frac{2}{5} \to 4\,x\,\frac{1}{5}\,x\,\frac{2}{5}=\frac{8}{25}$

**8/25**

**1 & 10/19**

**7/16**

**1 & 32/45**

**Add 2/3 + 4/9 =** $\frac{2}{3}+\frac{4}{9} \to \frac{2\,x\,3}{3\,x\,3}+\frac{4}{9} \to \frac{6}{9}+\frac{4}{9}=\frac{10}{9} \to 10\div9=1\frac{1}{9}$

**8/15**

**9/9=1**

**6/12=1/2**

**10/9 = 1 & 1/9**

**Compare 0.045 is _____ to 0.054 =**

**<span style="color:red">Less than</span>**

**Equal**

**Less than or equal**

**Greater than**

**Change 0.025 to a ratio=** $\dfrac{25}{1000} \rightarrow \dfrac{25 \div 25}{1000 \div 25} = \dfrac{1}{40}$

**<span style="color:red">1:40</span>**

**4:1**

**400:1**

**25:100**

**Change 0.004 to a ratio=** $\dfrac{4}{1000} \rightarrow \dfrac{4 \div 4}{1000 \div 4} = \dfrac{1}{250}$

**1:125**

**2:500**

**<span style="color:red">1:250</span>**

**4:1000**

**Largest?** $\dfrac{3}{8} = 0.375, \dfrac{3}{9} = 0.33, \dfrac{3}{6} = 0.5, \dfrac{3}{7} = 0.428$

**3/8**

**3/9**

**<span style="color:red">3/6</span>**

**3/7**

**Subtract 3/5 - 2/7 =** $\dfrac{3}{5} - \dfrac{2}{7} \rightarrow \dfrac{3 \times 7}{5 \times 7} - \dfrac{2 \times 5}{7 \times 5} \rightarrow \dfrac{21}{35} - \dfrac{10}{35} = \dfrac{11}{35}$

**½**

**3/35**

**-1/2**

**<span style="color:red">11/35</span>**

**Covert 1/5 to a decimal.** 1 $\div 5 = 0.2$

0.5

1.5

0.15

**0.2**

**Largest?**

0.6

0.0688

0.667

**0.68**

**A man is reading. He reads <mark>two chapters</mark> a day. <mark>How long</mark> will it take if there are <mark>6 pages</mark> per chapter and <mark>798 pages total</mark>? 2x6=12          12x 66.5 = 798 pages**

133

399

75 ½

**66 1/2**

**0.9 divided 3 =**

3

30

**0.3**

0.9

**Subtract 12.02 - 9.99=**

7.97

2.21

**2.03**

3.17

**Covert 2100 to standard =**

**9:00 PM**

2:00AM

2:00PM

**12:00PM**

**\*A label states 1 mil contains 500 mg. How many mils if there are 1.5 grams?**

**2**

**5**

**9**

**3**

**A mother is planning a birthday part. She will give <mark>each</mark> child <mark>15 balloons</mark>. There are <mark>50 balloons per packet.</mark> How many packets does the mother need if there will be <mark>16 children</mark>?**
**15x 16=240** $\div 50 = 4.8\, round\, ¿5$

**5**

**6**

**17**

**50**

**Version 2 – HESI**

**Farmer Juan has <mark>14 acres</mark>. There is an average yield of <mark>17460 eggs per acre</mark>. The profit <mark>per egg is \$1.65</mark>. What <mark>profit</mark> should farmer Juan expect for 14 acres? 14 x 17460 x \$1.65 = \$403326**

**\$403326**

**\$148145.45**

**\$244440**

**\$2057.79**

**Which is the highest? 0.077, 0.777, 0.08, 0.87**

**0.87**

**\*A truck driver left his house <mark>Tuesday at 10:00 AM</mark> and arrived at his destination <mark>Wednesday at 6:00 PM.</mark> He stopped <mark>twice for 30 minutes</mark> each time to get gas and food. He also stopped for a <mark>4 hour nap</mark> on Wednesday. <mark>How long</mark> did he drive for? Tues 10AM to Wed. 10AM = 24hr** $\rightarrow Wed\, 10\, AM\, ¿\, 6\, PM = 8\, hrs \rightarrow$ **2 x 30hrs – 1hrs for gas and 4 hrs nap=5hrs (24 +8 – 1 – 4 = 27 hours)**

**28 hours**

**32 hours**

**27 hours**

15 hours

Mr. Parker owns <mark>150 shares</mark> of stock in Stark Industries and receives <mark>$180.00 per year</mark> in dividends. <mark style="background-color:green">How much</mark> does Mr. Rogers receive for an annual dividend if he owns <mark>400 shares</mark> of the same company? **400x180=72000** $\div 150 = 480$

**480**

500

450

72000

Ratio and proportion: 0.1:10:: x:400

5

**4**

25

50

A marathon runner is training for her next race. On her weekly weekend run she complete 21.4 miles and burns 2276 calories. What is her rate of calories burned per mile? <mark>Round to the nearest tenth.</mark> **2276** $\div 21.4 = 106.35 \, round \, ¿ \, the \, nearest \, tenth = 106.4$

106.3

**106.4**

106.355

106.36

An artist sells paintings at $5.50 per painting. She has 7 stands in town. She pays $35 per stand. What was her profit if she sold an average of 11 paintings per stand? **$35 x 7 = $245 for the stands** $\rightarrow 11 \, x \, 7 = 77 \, total \, of \, paintings \rightarrow 77 \, x \, 5.50 = \$ 423.50$ **total paintings sold** $\rightarrow$ **$423.50 - $245 = $178.50**

$245

**$178.50**

$175

$423.50

Solve if y = 3. 4y + 21/y

23/3

**7.7**

**19**

**11**

**Farmer Juan finds that it takes 2 chickens to produce 6 eggs in 24 hours. How many chickens will he need to produce 24 eggs in 24 hours?**

**48**

**18**

**8**

**6**

**Divide: 4 2/3 ÷ 2 3/4 =**

**1 23/33**

2   **8/9**
3   **2 1/3**
4   **2 ¾**

**How many liters in 35 milliliters?**

**3.5**

**0.35**

**0.035**

**350**

**How many ounces in 3 5/8 quarts?**

**1quart =32 ounces**

**32**

**116**

**96**

**928/8**

**75 ÷ 2.2 Round to the nearest tenth.**

**34.1**

**34.09**

**35**

**34**

**How many inches in 3.5 yards?** 36x3.5=126

**1 yd = 3ft** → **1 ft = 12in.** → **1 yd = 36in.**

126

**A marathon runner is training for her next race. On her weekly weekend run she complete 21.4 miles and burns 2276 calories. What is her rate of calories burned per mile?** ==Round to the nearest tenth.== 2276 $\div 21.4 = 106.35 \rightarrow round\ i\ the\ nearest\ tenth\ 106.4$

106.4

106.36

106.3

106.355

**If Kevin can wash ==30 cars== in ==15 minutes==. ==How many== minutes will it take him to wash ==100 cars==?** $\dfrac{30\,cars}{15\,mins} = \dfrac{100\,cars}{x\,mins} \rightarrow 1500 \div 30 = 50\,mins$

45

50

30

55

**If Kennedy can plant ==50 flowers== in ==20 minutes==. ==How many== minutes will it take her to plant ==80 flowers==?** $\dfrac{20\,mins}{50\,flowers} = \dfrac{x\,mins}{80\,flowers} \rightarrow 20\,x\,80 = 1600 \div 50 = 32$

35

1600

32

40

**Multiply: 5 1/4 × 3 1/2 =** $5\dfrac{1}{4} \times 3\dfrac{1}{2} = \dfrac{4\,x\,5+1}{4} x \dfrac{2\,x\,3+1}{2} = \dfrac{21}{4} x \dfrac{7}{2} = \dfrac{147}{8} \left(8 \div 147 = 18\dfrac{3}{8}\right)$

15 ½

16 ¾

18 3/8

18 ¾

**What is 54% of $789.56?**   0.54 ÷ $789.56 = **$426.36**

**$4636.24**

**$355.30**

**$426.36**

**$355530.20**

**How many milligrams are in 3.4 grams?** 3.4 x 1000 = **3400**

|  | **SLD ÷1000** | | **LSM x 1000** |
| --- | --- | --- | --- |

**Large** (move 3 times to the right)   or   **Small** (move 3 times to the left)

| **Kilo** | **Metric** | **milli** | **micro** |
| --- | --- | --- | --- |
| **Km** | **meter** | **mm** | **mcm** |
| **KL** | **Liter** | **mL** | **mcL** |
| **Kg** | **gram** | **mg** | **mcg** |

**340**
**3400**
**34000**
**34**

**How many ounces in 1 pound?**
**1 pound = 16 oz**

**8**
**2.2**
**1000**
**16**

**Multiply: 3/4 × 1/3 = 1/4**

**How many ounces in 7 3/8 quarts?**   $\dfrac{8\,x\,7+3}{8}=\dfrac{59}{8} \rightarrow 59\div 8 = 7.375\,x\,32 = 236$

**1 quart = 32 ounce**
**32**
**128**
**236**
**320**

**A patient intake is 2 liters of IV and 5 pints of water. How many milliliters the patient intake?**

**Kilo   L   →      mL   mcL**

**( 1 pint = 2cup**  $\rightarrow 1\,cup = 8\,oz \rightarrow 1\,pint = 16\,oz \rightarrow 1\,oz = 30\,mL \rightarrow 1\,pint = 480\,mL$ **)**

**2L _2000___mL and 5pt _2400__mL  then you add both 2000 + 2400= 4400mL**

**7**

**2480**

**4400**

**2400**

**A train takes 1.5 hours at a constant speed of 65 mph to arrive at the destination. How many miles did the train travel?**

**100**

**97.5**

**43.3**

**95**

**Change 0.2 to a fraction.**  $\dfrac{2}{10} = \dfrac{1}{5}$

**2/10**

**1/50**

**2/100**

**1/5**

**Which fraction is larger 3/8 or 1/3? 3 ÷ 8 = 0.375 or 1 ÷ 3 = 0.333**

**1/3**

**3/8**

**Add: 1/3 + 2/6 + ½**

**1 1/3**

**1 1/6**

**1 2/12**

**5/6**

**What is 80% of 55?**

40

45

39

**44**

**Solve. 8/x = x/2**

6

**16**

4

14

**A mother is planning a birthday party or her 5 year old daughter. She will give 5 cookies to each child she invites. There are 8 children invited to the party. Every cookie contains 9 chocolate chips. A bag contains 50 chocolate chips. How many bags will mom have to buy? Round to the nearest whole number.** **8 x 5 = 40 (40 x 9 = 360 ÷50=¿ 7.2 → 8**

1

7

7.2

**8**

**Solve for x. 2.5:150 :: 20:x**

500

**1200**

250

1500

**How many ounces in 2.5 gallons?**

**1 gallon = 128 oz**

250

80

**320**

40

**1 L = _____ mL**

**1000**

**A cake provides 24 servings. How many cakes for a class of 70 and a staff of 3?**

**3.04**

**3**

**2**

**4**

**Subtract: 2 1/5 - 3/4 =**

**2 2/5**

**9/20**

**1 9/20**

**2 1/20**

**How many kg in 75 lb? Round to the nearest tenth.**

**0.03**

**34.1**

**34.09**

**34**

**Add: 7 1/4 + 5 3/5 =**

**12 7/10**

**12 11/20**

**12 17/20**

**13 3/10**

**Change 0.015 to a fraction.**

**3/20**

**15/100**

**15/1000**

**3/200**

**Divide: 60 ÷ 3/10 =**

20/10

**200**

600/3

2


**A farmer has 240 acres under cultivation at the cost of $188.99 per acre if he averages a yield of 60 bushel per acre, what profit is expected if the price per bushel is $5.67?** **240 x 60 x $5.67 = $81648 gross and 240 x $188.99 = $45357.60 for rent** $\rightarrow \$81648 - \$45357.60 = ¿$ **$36290.40**

**1 gal = _____ oz**

182

**128**

16

120

**On average, a baby needs 9 diapers each day. How many diapers does a baby need in a year?**

2190

3240

2160

**3285**

**How many ounces in 8 1/4 pints?**

**1 pint = 16oz**

240

528

320

**132**

**Add: 3 1/8 + 1 1/4 =**

4¾

4 ½

**4 3/8**

5¼

**Ratio and proportion: 3:10 :: 12:x =**

120

30

**40**

36

**Maya and Miguel are participating in a marathon to raise money for charity. Maya ran for 5 3/4 miles. Miguel ran 7 5/6 miles. How many miles did they run together?**

12 8/10

12 4/5

**13 7/12**

12 7/12

**A future nurse has an exam on Monday. She started studying Friday at 8:00 PM and stopped Sunday at 10:00 PM. She slept twice for 5 hours on Friday and Saturday. She also stopped four times for 1 hour each to take a break and eat. How long did she study for? Fri 8PM to Sun 10PM = 50hrs – 10hrs for sleeping – 4hrs for lunch = 36 hours**

14 hours

50 hours

**36 hours**

12 hours

**Change 0.02 to a ratio.**

2:1000

**1:50**

2:100

1:5

**Gary stored 3.5 gallons of water in his emergency kit. How many quarts did Gary store?**

**1 gallon = 4 quarts**

16

15

**14**

**28**

**A birthday balloon packet provides 50 balloons. How many packets does mom need to buy for her son if her son is inviting 100 friends?** **100 + 1 = 101**

$\div 50 = 2.02 \, round \, ¿ \, whole \, number \, 3$

**2.04**

**<span style="color:red">3</span>**

**4**

**2**

**Farmer Juan finds that it takes 2 chickens to produce 6 eggs. How many chickens will he need to produce 54 eggs?**

**15**

**16**

**18**

**6**

**A farmer finds 2 cows produces 135 burgers. How many cows does the farmer need if In-N-Out needs 1500 burgers?**

$$\frac{2 \, cows}{135 \, burgers} = \frac{x \, cows}{1500 \, burgers} \rightarrow 2 \, x \, 1500 = 3000 \div 135 = 22.22 (round) 23 \, cows$$

**<span style="color:red">23</span>**

**22**

**22.2**

**22.22**

**How many pounds in 48 ounces? 48 / 16 = 3**

**<span style="color:red">1 pound = 16 oz</span>**

**<span style="color:red">3</span>**

**6**

**4**

**8**

**Subtract: 6 1/2 - 2 2/3 =**

**4 1/6**

**3 1/3**

**3 5/6**

**3 2/3**