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Chapter 8 Practice Test

For #1 to #4, choose the correct answer.

1. What is the solution to $\frac{1}{3} - \frac{3}{2}x = -\frac{1}{6}$?

   A $-\frac{1}{9}$ B $\frac{1}{9}$

   C $\frac{3}{1}$ D $\frac{1}{3}$

2. What is the solution to $-\frac{5.2}{t} = -3.25$?

   A 1.6   B −1.6

   C 0.625   D −0.625

3. What is the solution to $0.45 - 0.3g = 0.85 + 0.2g$?

   A 0.8   B −0.8

   C 1.25   D −1.25

4. Which equation does *not* have the solution $y = -2$?

   A $\frac{y}{4} + 1 = \frac{1}{2}$ B $\frac{7}{8} - \frac{1}{y} = 1\frac{3}{8}$

   C $\frac{2y-1}{4} = \frac{5y-4}{8}$ D $\frac{2}{3}y + \frac{3}{2} = -\frac{1}{12}y$

Complete the statements in #5 and #6.

5. To solve a linear equation, isolate the _____.

6. For $2.43 = -0.38v$, the solution rounded to the nearest hundredth is $v =$ _____.

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Short Answer

7. Solve and check.

a) $\dfrac{a+1}{2} = \dfrac{2a-1}{5}$

Multiples of 2: _____

Multiples of 5: _____

b) $2.8(3d-2) = -12.32$

Check:

Left Side	Right Side

Check:

Left Side	Right Side

8. Nav pays a monthly fee of $5.95 for her bank account.
She also pays $0.75 for each deposit or withdrawal.
One month, the total fee for her account was $12.70.
How many deposits or withdrawals did she make that month?
Let x = the number of deposits or withdrawals Nav made.

The number of deposits or withdrawals Nav made that month was _____.

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9. Precipitation is moisture that falls as rain or snow.
There is a relationship between the depth of rain, r, and the depth of snow, s.

Equal quantities of precipitation result in the relationship $\dfrac{r}{s} = 0.1$.

a) 15.5 cm of snow falls in a storm. If it was a warm day, how much rain would that represent?

$\dfrac{r}{s} = 0.1$

Sentence: _____

b) 2.7 cm of rain falls. If it was a cold day, how much snow would that represent?
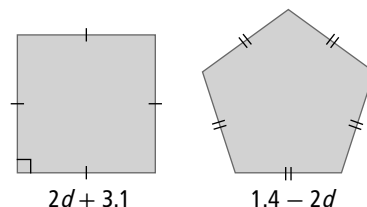
$\dfrac{r}{s} = 0.1$

Sentence: _____

10. The square and the regular pentagon have equal perimeters.

a) What is the value of d?

Perimeter of square = perimeter of pentagon

_____(_____ + _____) = _____(_____ − _____)

$2d + 3.1$ $1.4 - 2d$

The value of d is _____.

b) What is the perimeter of each shape?

Square: *Pentagon:*