

Algebra Review ~ Developing

A1 ~ Student can solve simple, multi-step, one-variable linear equations (variable on one side, no distribution).

1) $11 = \frac{n}{2} + 6$

2) $8 + \frac{n}{4} = 13$

3) $66 = 10 + 7x$

4) $6a - 9 = 69$

5) $-53 = 5b + 2$

6) $26 = 3n + 5$

7) $1 + \frac{k}{8} = -1$

8) $3 = \frac{m}{5} + 6$

9) $-10x + 7 = -153$

10) $5a + 5 = -10$

11) $\frac{x}{9} - 5 = -4$

12) $-1 = -1 + \frac{x}{1}$

13) $-18 = -5 - x$

14) $-x - 7 = -5$

A2 ~ Student can solve multi-step, one-variable linear equations that involve distribution and combining of like terms.

$$15) 62 = -2(-5n - 6)$$

$$16) -65 = -5(1 - 2n)$$

$$17) -64 = 2(-5p - 2)$$

$$18) 5(-2b + 3) = 75$$

$$19) -n - 5 - 5 = 5 - 4n$$

$$20) 1 + 2 - m + 4 = 1 + m$$

$$21) -5b - 5 = -11 - 6b$$

$$22) -6 - 2a + 6 - 12 = 3 + a$$

$$23) -4 - (1 - 3a) = -4a + 9$$

$$24) -5(2n - 6) - 2n = -21 + 5n$$

$$25) -28 - x = 4(6x + 6) + x$$

$$26) -n - 20 = -3(n + 4)$$

Name : _____

Score : _____

One-Step Equations - Integers

Add/Sub: S3

- 1) Tom has 25 bumblebee marbles and Marcus has a few more than Tom. If they have 56 marbles in all, how many bumblebee marbles does Marcus have?

- 2) A lecture was attended by 95 people in the university auditorium. Eleven of them were students who had volunteered to manage the event and the rest were senior professors. How many senior professors attended the lecture?

- 3) Louise has 500 cents in her piggy bank. Uncle Jim gave her a few cents on his visit. If Louise has 765 cents, how many cents did Uncle Jim give her?

- 4) James purchases tickets for the New York Knicks. He gives seven tickets to his colleagues. If James is left with 8 tickets, how many tickets did he purchase?

- 5) Ruby has to climb 36 steps to reach her apartment, on the third floor of the residential complex. She climbs 18 steps and reaches the second floor. How many more steps should she climb to reach her apartment?

Name : _____

Score : _____

One-Step Equations - Integers

Mul/Div: S3

- 1) Apples picked from an orchard are put into 5 sacks and are loaded into a small truck. If each sack contains 76 apples, how many apples are there in all?

- 2) If Joe earns an annual salary of \$72000, calculate his monthly income.

- 3) A group of students from Bethany's are taken for a counseling session. They are seated across eight classrooms. If each classroom has 33 students, how many students attended the session in all?

- 4) Betty is a swimming instructor. She is in charge of 5 batches of children. If there are 35 children in all, how many children does Betty instruct per batch?

- 5) Andrew paid \$72 as bike rental charges. If he is billed at \$8 an hour, how many hours has he used the bike for?

Algebra Review ~ Proficient

A1 ~ Student can solve simple, multi-step, one-variable linear equations (variable on one side, no distribution).

1) $-182 = -10n + 8$

2) $-10 = -8 + \frac{x}{-3}$

3) $15 = -4x + 7$

4) $37 = -2 - 3x$

5) $13 = -5 - x$

6) $-7 = \frac{p}{3} - 1$

7) $11 = 10 + \frac{p}{-6}$

8) $7 = 9 + \frac{b}{-8}$

9) $\frac{n+7}{9} = -1$

10) $13 = \frac{a+7}{2}$

11) $11 = 3 + \frac{k}{-2}$

12) $7 - n = 15$

13) $1 = \frac{5+p}{-4}$

14) $\frac{10+m}{-2} = -7$

A2 ~ Student can solve multi-step, one-variable linear equations that involve distribution and combining of like terms.

15) $3 = 3x + 2 - 2x$

16) $6 = 3p - 4 + 7$

17) $224 = -7(5n + 3)$

18) $-8(4b - 8) = -96$

19) $118 = -7(7p - 2) - 3p$

20) $5(-5 + 2n) - 4 = -109$

21) $68 = -(-8x - 4) - 3(x - 8)$

22) $7(-2 + 8k) + 8(-3k - 5) = -22$

23) $-2(1 + 4a) = 33 - 3a$

24) $1 + 2p = -5 + 6(-6p + 1)$

25) $5(x + 4) = 13 + 6x$

26) $-1 - 3(3 - 2n) = 4(4 + 8n)$

27) $2n + 6(n + 5) = -2(3n + 6)$

28) $3(6x + 4) = -8(x + 8) + 7x$

What Did the Baby Buzzard Say When It Saw an Orange in the Nest?



Solve each problem below. Find your answer in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that problem.

- | | |
|--|---|
| <p>① Two more than 5 times a number is 77. Find the number. _____</p> <p>② Five more than one third of a number is -2. Find the number. _____</p> <p>③ Nine less than one fourth of a number is 6. Find the number. _____</p> <p>④ Sixteen increased by twice a number is -56. Find the number. _____</p> <p>⑤ Twelve decreased by 8 times a number is 36. Find the number. _____</p> <p>⑥ One eighth of a number, increased by 20, is 32. Find the number. _____</p> <p>⑦ Twenty-five decreased by one fifth of a number is 18. Find the number. _____</p> <p>⑧ Nine times a number, diminished by 4, is 95. Find the number. _____</p> | <p>⑨ The length of a rectangle is 50 meters. This is 6 meters more than twice the width. Find the width. _____ m</p> <p>⑩ Grandpa Schmidt is 75 years old. This is 9 years less than seven times the age of Junior Schmidt. How old is Junior? _____ yr</p> <p>⑪ Bill's weight is 48 kilograms. This is 10 kilograms more than one half of his father's weight. What is his father's weight? _____ kg</p> <p>⑫ A medium orange has 70 calories. This is 10 calories less than one fourth of the calories in a Sugar Krunchy. How many calories are in a Sugar Krunchy? _____ cal</p> <p>⑬ The length of a couch is 200 centimeters. This is 16 centimeters less than 3 times the width of a matching chair. How wide is the chair? _____ cm</p> |
|--|---|

- | | |
|---|-------|
| G | 22 |
| D | 60 |
| M | 72 |
| I | 96 |
| H | 15 |
| S | 74 |
| T | 35 |
| L | 320 |
| N | -36 |
| R | 12 |
| E | -21 |
| F | 13 |
| K | 11 |
| C | 342 |
| O | -3 |
| A | 76 |

12	5	5	8	11	7	7	1	2	5	10	11	4	9	2	13	11	13	11	12	11	6	3
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What Do They Call Bowling in Hawaii?

Solve each problem below. Then find your solution in the answer column and notice the letter next to it. Write this letter in each box that contains the number of that problem. Aloha-ha-ha!

- ① The second of two numbers is 4 times the first. Their sum is 50. Find the numbers.
- ② The larger of two numbers is 12 more than the smaller. Their sum is 84. Find the numbers.
- ③ The sum of two numbers is 45. The first is 9 less than the second. Find the numbers.
- ④ The second of two numbers is 5 more than twice the first. Their sum is 80. Find the numbers.
- ⑤ The larger of two numbers is 1 less than 3 times the smaller. Their sum is 63. Find the numbers.
- ⑥ Find two numbers whose sum is 92, if the first is 4 more than 7 times the second.
- ⑦ The sum of two numbers is 172. The first is 8 less than 5 times the second. Find the *first* number.
- ⑧ Together, a necklace and a bracelet cost \$192. Find the price of each if the necklace costs 3 times as much as the bracelet.
- ⑨ Grandpa's age is 6 years less than 6 times Junior's age. The sum of their ages is 78. Find each of their ages.
- ⑩ The first of two films lasted 3 minutes less than twice as long as the second. Together the two films lasted 132 minutes. How long was the *first* film?

- | | |
|-----|-------------|
| (A) | 80, 12 |
| (O) | 25, 55 |
| (L) | 87 min |
| (G) | 81, 11 |
| (F) | \$40, \$152 |
| (D) | 30, 50 |
| (T) | 36, 48 |
| (N) | 12, 66 |
| (I) | 16, 47 |
| (S) | 18, 27 |
| (B) | 84 min |
| (E) | 10, 40 |
| (M) | 139 |
| (R) | \$48, \$144 |
| (P) | 19, 28 |
| (H) | 142 |



8	4	10	10	5	9	6	5	9	2	7	1	5	3	10	1	3
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Algebra Review ~ Extending

A1 ~ Student can solve simple, multi-step, one-variable linear equations (variable on one side, no distribution).

1) $1\frac{1}{2}n - 1\frac{1}{2} = -\frac{3}{8}$

2) $-2\frac{3}{4} - 1\frac{4}{5}n = -3\frac{1}{20}$

3) $-1\frac{1}{15} = 2\frac{1}{3} - 3\frac{2}{5}r$

4) $-\frac{2}{5} - 1\frac{3}{4}r = \frac{11}{60}$

5) $-\frac{3}{2} + 1\frac{1}{2}n = \frac{9}{14}$

6) $-\frac{13}{45} = 2p - \frac{7}{5}$

7) $4.28 = 4.2 + \frac{x}{2.5}$

8) $\frac{-4 + x}{4.6} = -2.5$

9) $\frac{4.7 + n}{2} = 0.05$

10) $\frac{b}{2.8} - 1.3 = -0.3$

11) $-40.5 = 4.5n + 0.9$

12) $4.46 + \frac{n}{2.35} = 8.46$

A2 ~ Student can solve multi-step, one-variable linear equations that involve distribution and combining of like terms.

$$13) \frac{89}{210} = -1\frac{1}{5}n + 4\frac{1}{6}n$$

$$14) -6.24 = 3.6n - 2n$$

$$15) -8\left(-\frac{27}{8}x + \frac{13}{7}\right) = 93\frac{1}{7}$$

$$16) 118.02 = -3.5(-7.4 - 5.6k)$$

$$17) -1\frac{1}{2}\left(-\frac{11}{6}b - 3\frac{3}{4}\right) + \frac{7}{4}\left(-\frac{3}{8}b - 1\frac{3}{8}\right) = \frac{5}{64}$$

$$18) 4.68 = -7.3(x - 7.6) - 6(-4.9 - 7.9x)$$

$$19) -\frac{15}{8}\left(n + 1\frac{4}{5}\right) = -2\frac{1}{2}n - 4\frac{5}{56}$$

$$20) 32.49 + 2.5a = 5.3(a + 3.5) - 3.7$$

$$21) \frac{1}{2}\left(\frac{4}{7}v - 1\frac{1}{2}\right) = \frac{9}{7}\left(2\frac{1}{3}v - 2\frac{5}{8}\right)$$

$$22) -(1 - 4.8m) = -0.2 + 6.4(m - 4.3)$$

DID YOU HEAR ABOUT . . .

A	B	C	D	E
F	G	H	I	J ?

Solve each problem below. Find your solution in the answer column and notice the word next to it. Write the word in the box above that contains the letter of that exercise. Keep working and you will hear about some "punny" business!

Answers:

- (A) The length of a rectangular field is 24 meters. This is 3 meters less than twice the width. Find the width.

_____ m

- (B) The price of a television set on sale is \$360. This is two thirds of the regular price. Find the regular price.

\$ _____

- (C) Three fifths of the members of a hiking club went on the last hiking trip. If 39 people went on the trip, how many are in the club?

_____ people

- (D) Matthew travels two and one-half miles to get to school. This is 3 times the distance that Jennifer travels. How far does Jennifer travel?

_____ mi

- (E) The diameter of a small pizza is 16 centimeters. This is 2 centimeters more than two fifths of the diameter of a large pizza. Find the diameter of the large pizza.

_____ cm

- (F) The width of a photograph is 4 centimeters more than three tenths of the length. If the width is 13 cm, find the length.

_____ cm

- (G) The heaviest human of all time weighed 486 kilograms. This is 12 kilograms less than 6 times Juan's weight. How much does Juan weigh?

_____ kg

- (H) The rainfall this year was 18.6 centimeters. This is 3.2 centimeters less than half of the rainfall last year. What was the rainfall last year?

_____ cm

- (I) The price of a brick today is 49¢. This is 3¢ less than 4 times the price 20 years ago. What was the price 20 years ago?

_____ ¢

- (J) Rolex Smudgepot owns 17 ounces of gold. This is one ounce more than three fourths of the amount he owned last year. How much did he own last year?

_____ oz

552 BOND

30 AND

21 $\frac{1}{3}$ STOCK

65 WHO

69 MARKET

35 HIMSELF

1 $\frac{1}{2}$ BROKER

37 COMPANY

32 BUSINESS

13.5 THE

81 DOW

13 LAUGHING

83 BECAME

43.6 A

44.7 JONES

540 COMEDIAN

23 FUNNY

$\frac{5}{6}$ INCORPORATED

15 JOKE

