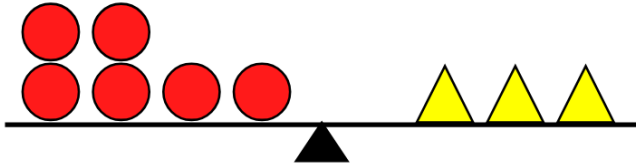




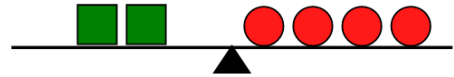
Algebra Basic Concepts - Practice

1 Which shapes will balance the bottom scale?



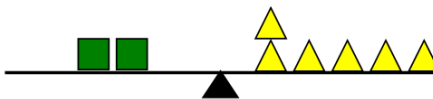
- | | | |
|-------|-------|-------|
| A
 | B
 | C
 |
| D
 | E
 | |

2 Which shapes will balance the bottom scale?



- | |
|-------|
| A
 |
| B
 |
| C
 |
| D
 |

3 Which shapes will balance the bottom scale?



- | | | |
|-------|-------|-------|
| A
 | B
 | C
 |
| D
 | E
 | |

4 Which shapes will balance the bottom scale?



- | |
|-------|
| A
 |
| B
 |
| C
 |
| D
 |

5 Which equations represent what these meals cost

$$4 \text{ burger} + 2 \text{ fries} = 22$$

$$6 \text{ burger} = 24$$

$$1 \text{ fries} = ?$$



Algebra Basic Concepts - Practice

6 What would the bottom meal cost?

$$2 \text{ (salad bowl)} = \text{CHECK } 8$$

$$1 \text{ (salad bowl)} = \text{CHECK } ?$$

A

$$\text{CHECK } 3$$

B

$$\text{CHECK } 4$$

7 What would the bottom meal cost?

$$1 \text{ (pizza)} = \text{CHECK } 5$$

$$3 \text{ (pizza)} + 3 \text{ (salad bowl)} = \text{CHECK } 18$$

$$1 \text{ (salad bowl)} = \text{CHECK } ?$$

A

$$\text{CHECK } 2$$

B

$$\text{CHECK } 1$$



Algebra Basic Concepts - Practice

- 8 Which equations represent what these meals cost

$$1 \text{ bowl} + 2 \text{ donuts} = 6$$

$$6 \text{ bowls} = 12$$

$$1 \text{ bowl} + 1 \text{ donut} = ?$$

- 9 Which equations represent what these scales are showing



- 10 What would the bottom meal cost?

$$8 \text{ burgers} = 16$$

$$4 \text{ burgers} + 3 \text{ donuts} = 23$$

$$1 \text{ burger} + 1 \text{ donut} = ?$$

A



B

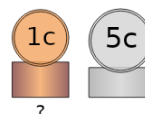


- 11 Which equations represent what these scales are showing



- 12 Some coins have a total value of \$0.22. There are 6 times as many Pennies than Nickels. How many Pennies are there?

\$0.22

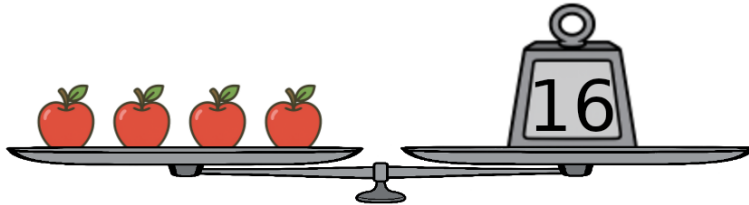


A	11
B	19
C	12
D	4



Algebra Basic Concepts - Practice

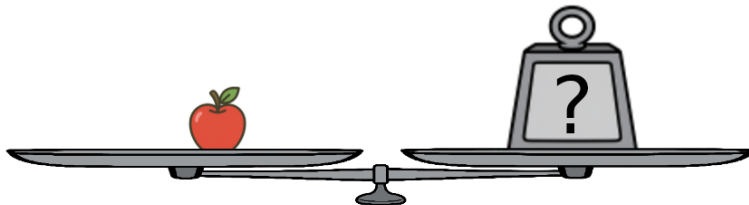
13 What weight would balance the bottom scale?



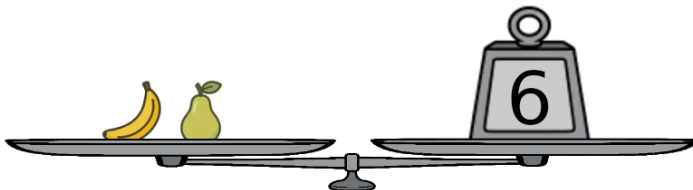
A



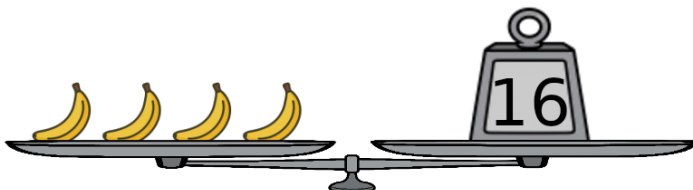
B



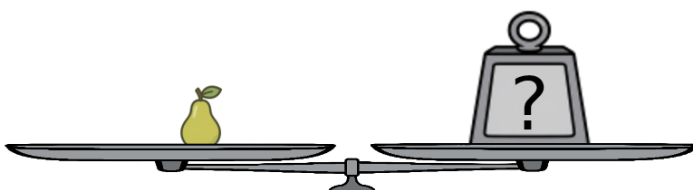
14 What weight would balance the bottom scale?



A



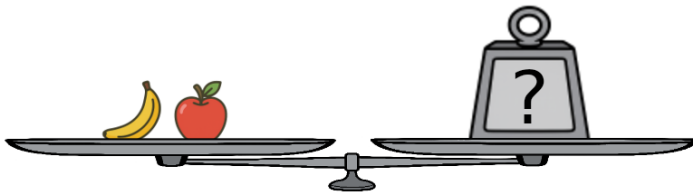
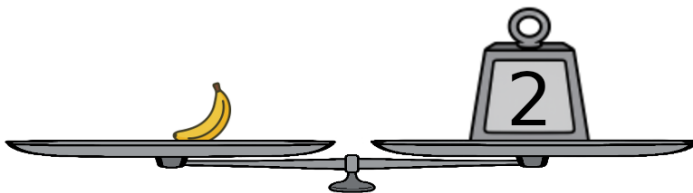
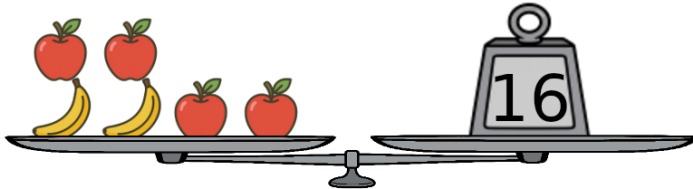
B





Algebra Basic Concepts - Practice

15 What weight would balance the bottom scale?



A

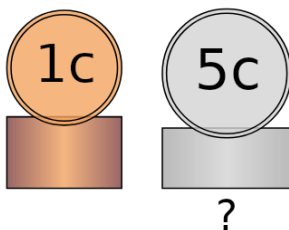


B



16 Some coins have a total value of \$0.26. There are 2 more Pennies than Nickels. How many Nickels are there?

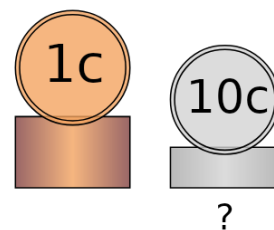
\$0.26



A 10	B 1	C 4
D 8	E 6	

17 Some coins have a total value of \$0.43. There are 10 more Pennies than Dimes. How many Dimes are there?

\$0.43



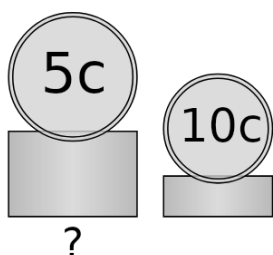
A 3	B 9	C 1
D 4	E 5	



Algebra Basic Concepts - Practice

- 18** Some coins have a total value of \$0.40. There are 2 times as many Nickels than Dimes. How many Nickels are there?

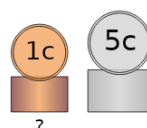
\$0.40



A	5	B	6	C	4
D	2	E	8		

- 19** Some coins have a total value of \$0.06 There are the same number of Pennies and Nickels, and only those coins. How many Pennies are there?

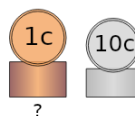
\$0.06



A	3
B	8
C	1
D	4

- 20** Some coins have a total value of \$0.55 There are the same number of Pennies and Dimes, and only those coins. How many Pennies are there?

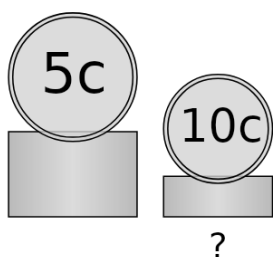
\$0.55



A	2
B	5
C	8
D	3

- 21** Some coins have a total value of \$0.60. There are 1/2 as many Dimes as Nickels. How many Dimes are there?

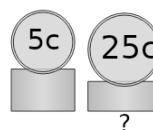
\$0.60



A	9	B	4	C	2
D	8	E	3		

- 22** Some coins have a total value of \$0.35. There are 1/2 as many Quarters as Nickels. How many Quarters are there?

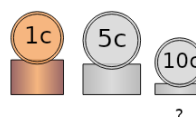
\$0.35



A	1
B	5
C	9
D	4

- 23** Some coins have a total value of \$0.46. There are 2 more Pennies than Nickels and 2 more Nickels than Dimes. How many Dimes are there?

\$0.46



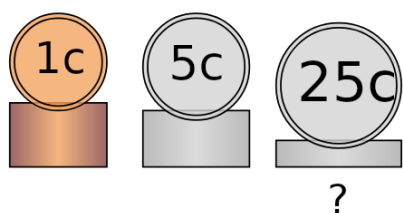
A	7
B	6
C	1
D	2



Algebra Basic Concepts - Practice

- 24** Some coins have a total value of \$0.79. There are 11 more Pennies than Nickels and 1 more Nickels than Quarters. How many Quarters are there?

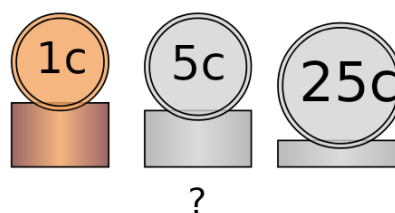
\$0.79



A	10	B	4	C	2
D	1	E	8		

- 25** Some coins have a total value of \$0.78. There are 2 times as many Pennies than Nickels and 2 times as many Nickels than Quarters. How many Nickels are there?

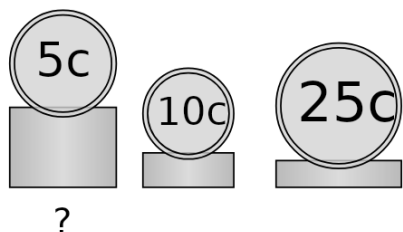
\$0.78



A	1	B	6	C	4
D	7	E	12		

- 26** Some coins have a total value of \$1.15. There are 4 times as many Nickels than Dimes and 3 times as many Dimes than Quarters. How many Nickels are there?

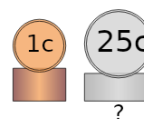
\$1.15



A	7	B	3	C	5
D	12	E	9		

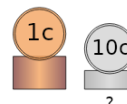
- 27** Some coins have a total value of \$0.55. There are 3 more Pennies than Quarters. What equations would help us solve?

\$0.55



- 28** Some coins have a total value of \$0.14. There are 4 times as many Pennies than Dimes. What equations would help us solve?

\$0.14

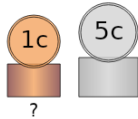




Algebra Basic Concepts - Practice

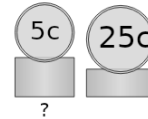
- 29** Some coins have a total value of \$0.12. There are the same number of Pennies and Nickels, and only those coins. What equations would help us solve?

\$0.12



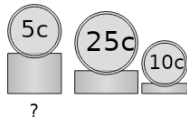
- 30** Some coins have a total value of \$0.35. There are $\frac{1}{2}$ as many Quarters as Nickels. What equations would help us solve?

\$0.35



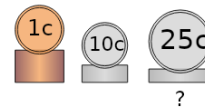
- 31** Some coins have a total value of \$0.80. There are 2 more Nickels than Quarters and 1 more Quarters than Dimes. What equations would help us solve?

\$0.80



- 32** Some coins have a total value of \$0.98. There are 2 times as many Pennies than Dimes and 2 times as many Dimes than Quarters. What equations would help us solve?

\$0.98



- 33** What number can be put in the circle to make this equation correct?

$$\bigcirc + 6 = 10$$

A $\bigcirc = 6$

B $\bigcirc = 3$

C $\bigcirc = 1$

D $\bigcirc = 4$

E $\bigcirc = 2$

F $\bigcirc = 5$

- 34** What number can be put in the circle to make this equation correct?

$$\bigcirc \div 9 = 5$$

A $\bigcirc = 47$

B $\bigcirc = 44$

C $\bigcirc = 45$

D $\bigcirc = 42$

E $\bigcirc = 46$

F $\bigcirc = 48$

- 35** What number can be put in the circle to make this equation correct?

$$\bigcirc - 7 = 0$$

A $\bigcirc = 7$

B $\bigcirc = 5$

C $\bigcirc = 9$

D $\bigcirc = 8$

E $\bigcirc = 4$

F $\bigcirc = 6$

- 36** What number can be put in the circle to make this equation correct?

$$4 \cdot \bigcirc = 32$$

A $\bigcirc = 8$

B $\bigcirc = 10$

C $\bigcirc = 11$

D $\bigcirc = 5$

E $\bigcirc = 9$

F $\bigcirc = 6$

**Algebra Basic Concepts - Practice**

- 37** What number can be put in the circle to make this equation correct?

$$\bigcirc - 4 = 2 - 4$$

- | | |
|------------------|-------------------|
| A $\bigcirc = 5$ | B $\bigcirc = -1$ |
| C $\bigcirc = 0$ | D $\bigcirc = 2$ |
| E $\bigcirc = 1$ | F $\bigcirc = 4$ |

- 38** What number can be put in the circle to make this equation correct?

$$\bigcirc + 8 = 20 - 3$$

- | | |
|-------------------|------------------|
| A $\bigcirc = 9$ | B $\bigcirc = 8$ |
| C $\bigcirc = 10$ | D $\bigcirc = 6$ |
| E $\bigcirc = 11$ | F $\bigcirc = 7$ |

- 39** Solve for the variable in the equation

$$n + 9 = 18$$

- | | |
|-----------|------------|
| A $n = 8$ | B $n = 7$ |
| C $n = 6$ | D $n = 11$ |
| E $n = 9$ | F $n = 10$ |

- 40** Solve for the variable in the equation

$$m \div 6 = 4$$

- | | |
|------------|------------|
| A $m = 22$ | B $m = 23$ |
| C $m = 25$ | D $m = 24$ |
| E $m = 21$ | F $m = 26$ |

- 41** Solve for the variable in the equation

$$r - 3 = 1$$

- | | |
|-----------|-----------|
| A $r = 7$ | B $r = 3$ |
| C $r = 4$ | D $r = 1$ |
| E $r = 6$ | F $r = 2$ |

- 42** Solve for the variable in the equation

$$z + 7 = 9$$

- | | |
|-----------|------------|
| A $z = 5$ | B $z = 1$ |
| C $z = 2$ | D $z = 0$ |
| E $z = 3$ | F $z = -1$ |

- 43** Solve for the variable in the equation

$$5x = 15$$

- | | |
|-----------|-----------|
| A $x = 6$ | B $x = 3$ |
| C $x = 2$ | D $x = 5$ |
| E $x = 4$ | F $x = 1$ |

- 44** Solve for the variable in the equation

$$m + 5 = 14 - 4$$

- | | |
|-----------|-----------|
| A $m = 4$ | B $m = 2$ |
| C $m = 8$ | D $m = 3$ |
| E $m = 5$ | F $m = 6$ |

**Algebra Basic Concepts - Practice**

45 Solve for the variable in the equation
 $9r + 4 = 40$

A $r = 7$

B $r = 6$

C $r = 1$

D $r = 4$

E $r = 5$

F $r = 2$

46 What number can be put in the circle to make this equation correct?

$2 \times \bigcirc \div 2 = 9$

A $\bigcirc = 8$

B $\bigcirc = 7$

C $\bigcirc = 9$

D $\bigcirc = 11$

E $\bigcirc = 10$

F $\bigcirc = 12$

47 What number can be put in the circle to make this equation correct?

$$\frac{108}{3 \cdot \bigcirc} = 9$$

A $\bigcirc = 5$

B $\bigcirc = 7$

C $\bigcirc = 6$

D $\bigcirc = 2$

E $\bigcirc = 4$

F $\bigcirc = 3$

48 What number can be put in the circle to make this equation correct?

$3 \cdot \bigcirc + 7 = 43 - 9 \cdot \bigcirc$

A $\bigcirc = 0$

B $\bigcirc = 2$

C $\bigcirc = 4$

D $\bigcirc = 1$

E $\bigcirc = 3$

F $\bigcirc = 6$

49 Solve for the variable in the equation
 $7m = 26 - 6m$

A $m = 4$

B $m = 3$

C $m = 1$

D $m = 5$

E $m = 0$

F $m = 2$

50 Solve for the variable in the equation

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

A $d = 8$

B $d = 5$

C $d = 3$

D $d = 4$

E $d = 6$

F $d = 7$

51 Solve for the variable in the equation
 $r - 5 = 4 - 4$

A $r = 4$

B $r = 3$

C $r = 5$

D $r = 8$

E $r = 2$

F $r = 6$

52 Solve for the variable in the equation
 $3p - 2 = 33 - 2p$

A $p = 4$

B $p = 10$

C $p = 5$

D $p = 8$

E $p = 9$

F $p = 7$

**Algebra Basic Concepts - Practice**

- 53** What number can be put in the circle to make this equation correct?

$$\bigcirc - 4 = 2$$

A $\bigcirc = 4$

B $\bigcirc = 5$

C $\bigcirc = 6$

D $\bigcirc = 3$

E $\bigcirc = 8$

F $\bigcirc = 9$

- 55** Solve the fraction for 'x' in terms of the variables and reduce.

$$3a = \frac{x}{b}$$

A $x = 3a \cdot b$

B $x = \frac{b}{3a}$

C $x = \frac{3a}{b}$

D $x = \frac{b}{a}$

- 54** Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{x}{c}$$

A $x = \frac{c}{a}$

B $x = \frac{a}{c}$

C $x = a \cdot c$

- 56** Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{d}{x}$$

A $x = \frac{a}{d}$

B $x = \frac{d}{a}$

- 57** Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{4f}{x}$$

A $x = \frac{a}{4f}$

B $x = \frac{4f}{a}$

C $x = \frac{f}{a}$

D $x = \frac{f}{4a}$

- 58** What number can be put in the circle to make this equation correct?

$$\bigcirc + 8 = 19 - 8$$

A $\bigcirc = 3$

B $\bigcirc = 6$

C $\bigcirc = 2$

D $\bigcirc = 5$

E $\bigcirc = 0$

F $\bigcirc = 1$



Algebra Basic Concepts - Practice

59 Solve the fraction for 'x' in terms of the variables and reduce.

$$a = \frac{g}{x}$$

A

$$x = \frac{a}{g}$$

B

$$x = \frac{g}{a}$$

C

$$x = a \cdot g$$

60 Solve the fraction for 'x' in terms of the variables and reduce.

$$2a = \frac{b}{x}$$

A

$$x = \frac{2b}{a}$$

B

$$x = 2a \cdot b$$

C

$$x = \frac{b}{2a}$$

61 If c is 6, what common math function does showing 2 and c together mean?

$$c = 6$$

$$2c = ?$$

A

$$2 \times 6$$

B

$$6^2$$

C

$$2 - 6$$

D

$$2^6$$

E

$$\frac{2}{6}$$

F

$$2 + 6$$

62 If n is 9, what common math function does showing 3 and n with a dot between them mean?

$$n = 9$$

$$3 \cdot n = ?$$

$$3 + 9$$

B

$$3 \times 9$$

$$3 - 9$$

D

$$9^3$$

E

$$3^9$$

F

$$\frac{3}{9}$$

63 Which equations represent what these meals cost

$$2 \text{ 🍕} + 1 \text{ 🍎} = \text{📄} 8$$

$$4 \text{ 🍕} + 4 \text{ 🍎} = \text{📄} 20$$

$$1 \text{ 🍎} = \text{📄} ?$$

64 Which equations represent what these meals cost

$$8 \text{ 🍕} = \text{📄} 32$$

$$3(2 \text{ 🍕} + 2 \text{ 🍌}) = \text{📄} 30$$

$$1 \text{ 🍌} = \text{📄} ?$$



Algebra Basic Concepts - Practice

65 What would the bottom meal cost?

$$4 \text{ apple} + 2 \text{ noodle} = \text{CHECK } 28$$

$$3 \text{ apple} + 3 \text{ noodle} = \text{CHECK } 27$$

$$1 \text{ noodle} = \text{CHECK } ?$$

A



B



66 Which shapes will balance the bottom scale?



A



B



C

