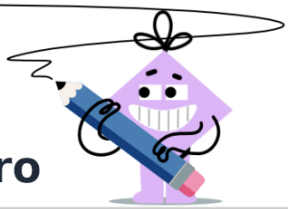
Name



Algebra Manipulating Variables - Intro

1 Which answer is the same expression as this

$$n(6-p)$$

A n^2+6n	B $6n+np$
C $np-6$	D $6n-np$
E $6p-6n$	F $np+6$

2 Which answer is the same expression as this

$$y(y+7)$$

A y^7+7y	B $2y^2+7y$
C y^2+7y	D $2y+7y$
E $7y^2+7y$	F $y+7$

3 Solve for the variable in the equation

$$z+9=15-2$$

A $z=6$	B $z=3$
C $z=1$	D $z=7$
E $z=2$	F $z=4$

4 Solve for the variable in the equation

$$9z=26-4z$$

A $z=3$	B $z=1$
C $z=-1$	D $z=5$
E $z=4$	F $z=2$

5 Which answer is the same expression as this

$$(z+8)(y+2)$$

A $zy+8y+2z+16$
B $10zy+8y+2z+16$

6 Which answer is the same expression as this

$$(n-8)(n+6)$$

A $48n^2-2n-48$
B $n^2-2n-48$

7 Which answer is the same expression as this

$$(y+9)(x-7)$$

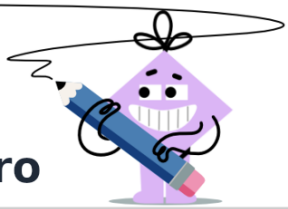
A $yx-7x+9y-63$
B $yx+9x-7y-63$

8 Which answer is the same expression as this

$$(m+4)(m+6)$$

A $m^2--2m+24$
B $m^2+10m+24$

Name



Algebra Manipulating Variables - Intro

9 Which answer is the same expression as this

$$(m-3)(q-7)$$

A $mq-3q-7m+21$

B $mq-3q-7m+13$

10 Solve for the variable in the equation

$$2n-5=11$$

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

11 Which answer is the same expression as this

$$(w+9)(w+7)$$

A $w^2+16w+63$

B $w^2+16w+16$

12 Which answer is the same expression as this

$$(z+8)(x+3)$$

A $zx+8x+3z+11$

B $zx+8x+3z+24$

13 Which answer is the same expression as this

$$(q+5)(q+7)$$

A $12q^2+q+35$

B $q^2+12q+35$

14 Solve for the variable in the equation

$$\frac{2c}{4}=2$$

A $c=2$	B $c=1$
C $c=3$	D $c=5$
E $c=7$	F $c=4$

15 Solve for the variable in the equation

$$8r+7=11+6r$$

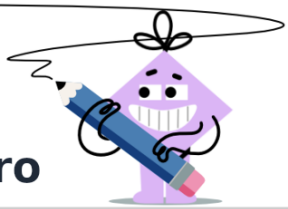
A $r=0$	B $r=5$
C $r=2$	D $r=3$
E $r=-1$	F $r=1$

16 Solve for the variable in the equation

$$\frac{36}{4y+2}=2$$

A $y=2$	B $y=5$
C $y=3$	D $y=7$
E $y=6$	F $y=4$

Name



Algebra Manipulating Variables - Intro

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

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

A $x = \frac{a \cdot b}{4}$

B $x = 4a \cdot b$

C $x = \frac{b}{4a}$

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

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

$$4a = \frac{x}{2b}$$

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

B $x = 8a \cdot b$

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

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

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

$$4a = \frac{4x}{2b}$$

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

B $x = 2a \cdot b$

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

D $x = \frac{b}{8a}$

E $x = \frac{b}{32a}$

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

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

A $x = \frac{a}{2d}$

B $x = \frac{a \cdot d}{2}$

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

D $x = \frac{d}{2a}$

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

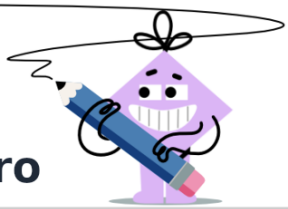
$$2a = \frac{4b}{2x}$$

A $x = \frac{b}{16a}$

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

C $x = \frac{a}{4b}$

Name



Algebra Manipulating Variables - Intro

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

$$2a = \frac{4b}{x}$$

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

B $x = \frac{b}{8a}$

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

D $x = 8a \cdot b$

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

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

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

B $x = 2a \cdot b$

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

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

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

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

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

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

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

D $x = 3a \cdot b$

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

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

A $x = a \cdot b$

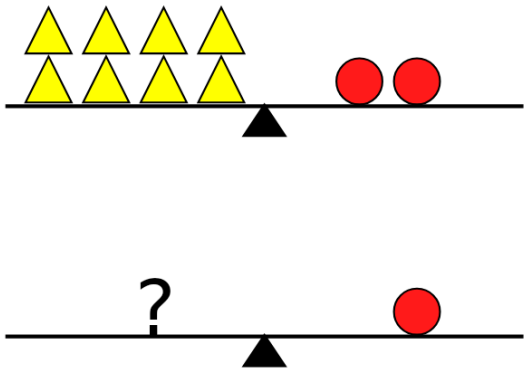
B $x = 9a \cdot b$

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

Name

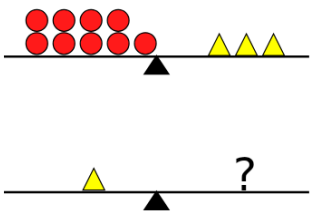
Algebra Manipulating Variables - Intro

26 Which equation represents the solution to the bottom scale?



A $t = c$	B $4t = c$
C $t + c = c$	D $3t + 4c = c$
E $3t + c = c$	

27 Which equation represents the solution to the bottom scale?



A	$t = 3c + t$
B	$t = 4c + t$
C	$t = c$
D	$t = 3c$

28 Solve for the variable in the equation

$$y \div 7 = 4$$

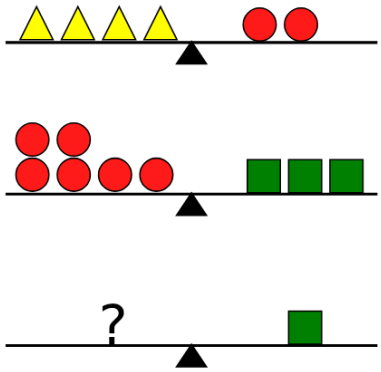
A $y = 25$	B $y = 26$
C $y = 29$	D $y = 30$
E $y = 27$	F $y = 28$

29 Solve for the variable in the equation

$$\frac{d}{5} = 2$$

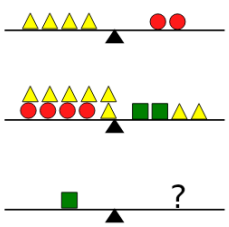
A $d = 9$	B $d = 13$
C $d = 12$	D $d = 11$
E $d = 10$	F $d = 8$

30 Which equation represents the solution to the bottom scale?



A $5t = s$	B $4t = s$
C $2t = s$	D $c = s$
E $6t = s$	

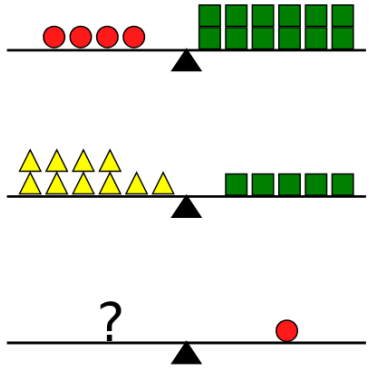
31 Which equation and answer represents these balance beams and the bottom solution



Name

Algebra Manipulating Variables - Intro

32 Which equation represents the solution to the bottom scale?



A $6t + c = c$

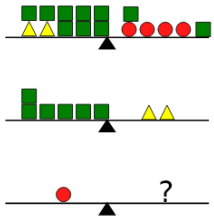
B $5t + c + s = c$

C $6t = c$

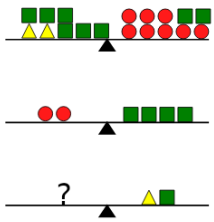
D $3t + c = c$

E $3t + c + s = c$

33 Which equation and answer represents these balance beams and the bottom solution



34 Which equation and answer represents these balance beams and the bottom solution



35 Which equation and answer represents these balance beams and the bottom solution

