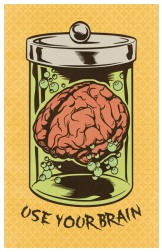
Warm Up Grade 7



Use Mental Math

1) 0.3 x 40

2) 75% of 160

Solve using algebra

1) $2x - 5 = 33$

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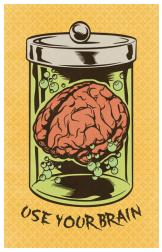

Use Mental Math

1) 0.3 x 40

Thinking --> 3 x 40 = 120

but 0.3 x 40 has 1 digit after decimal

so answer needs one digit after decimal.

0.3 x 40 = 12.0

2) 75% of 160

25% of 160 = 40

(Like dividing by 4)

x3 ÷3

75% of 160 = 120

Solve using algebra

1) $2x - 5 = 33$

$2x - 5 + 5 = 33 + 5$

$2x = 38$

$\frac{2x}{2} = \frac{38}{2}$

$x = 19$

pg238

2 m = the number

a) $m+19=42$

$m+19-19=42-19$

$m=23$

verify

LS: $m+19$, $23+19$, 42

RS: 42

b) $3m+10=25$

$3m+10-10=25-10$

$3m=15$

$\frac{3m}{3}=\frac{15}{3}$

$m=5$

verify

LS: $3m+10$, $3\times5+10$, $15+10$, 25

RS: 25

c) $4m+15=63$

$4m+15-15=63-15$

$4m=48$

$\frac{4m}{4}=\frac{48}{4}$

$m=12$

verify

LS: $4m+15$, $4\times12+15$, $48+15$, 63

RS: 63

3. a = Jari's age now

$2a+5=27$

$2a+5-5=27-5$

$2a=22$

$\frac{2a}{2}=\frac{22}{2}$

$a=11$

verify

LS
$2a+5$
$2\times11+5$
$22+5$
27

RS
27

Jari is now 11.

4. h = hours Jenny babysat

$6h+3=33$

$6h+3-3=33-3$

$6h=30$

$\frac{6h}{6}=\frac{30}{6}$

$h=6$

per
6 / hour

verify

LS
$6h+3$
$6\times5+3$
$30+3$
33

RS
33

Jenny babysat for 5 hours

5 x = number of weeks

$7x+4=25$

$7x+4-4=25-4$

$7x=21$

$\frac{7x}{7}=\frac{21}{7}$

$x=3$

verify

LS
$7x+4$
$7\times3+4$
$21+4$
25

RS
25

6. s = side length of square

Per of Square + Per of △ = 56

Per of □ + 24 = 56

$4s + 24 = 56$

$4s + 24 - 24 = 56 - 24$

$4s = 32$

$\frac{4s}{4} = \frac{32}{4}$

$s = 8$

The length of the side is 8

LS
$4s + 24$
$4 \times 8 + 24$
$32 + 24$
56

RS
56

7. Saves $24/week
has $72

w = number of weeks

$24w + 72 = 288$

$24w + 72 - 72 = 288 - 72$

$24w = 216$

$\frac{24w}{24} = \frac{216}{24}$

$w = 9$

In 9 weeks, she will have $288

verify

LS
$24w + 72$
$24 \times 9 + 72$
$216 + 72$
288

RS
288

Extra Practice 4

1a) $x - 29 = 13$

$x - 29 + 29 = 13 + 29$

$x = 42$

b) $8x = 72$

$\frac{8x}{8} = \frac{72}{8}$

$x = 9$

c) $7x = 49$

$\frac{7x}{7} = \frac{49}{7}$

$x = 7$

d) $x + 19 = 73$

$x + 19 - 19 = 73 - 19$

$x = 54$

e) $3x - 8 = 46$

$3x - 8 + 8 = 46 + 8$

$3x = 64$

$\frac{3x}{3} = \frac{54}{3}$

$x = 18$

verify

LS

$3x - 8$

$3 \times 18 - 8$

$54 - 8$

46

RS

46

f) $2x + 11 = 55$

$2x + 11 - 11 = 55 - 11$

$2x = 44$

$\frac{2x}{2} = \frac{44}{2}$

$x = 22$

verify

LS

$2x + 11$

$2 \times 22 + 11$

$44 + 11$

55

RS

55

2. a = the number

a) $a+17=73$

$a+17-17=73-17$

$a=56$

The number is 56

LS verify RS

$a+17$ 73

$56+17$

73

b) $a-13=47$

$a-13+13=47+13$

$a=60$

The number is 60

LS verify RS

$a-13$ 47

$60-13$

47

c) $6a=54$

$\frac{6a}{6}=\frac{54}{6}$

$a=9$

The number is 9

LS verify RS

$6a$ 54

6×9

54

d) $3a+7=31$

$3a+7-7=31-7$

$3a=24$

$\frac{3a}{3}=\frac{24}{3}$

$a=8$

The number is 8

LS verify RS

$3a+7$ 31

$3\times8+7$

$24+7$

31

e) $2a-5=29$

$2a-5+5=29+5$

$2a=34$

$\frac{2a}{2}=\frac{34}{2}$

$a=17$

The number is 17

LS verify RS

$2a-5$ 29

$2\times17-5$

$34-5$

29

f) $9a+9=99$

$9a+9-9=99-9$

$9a=90$

$\frac{9a}{9}=\frac{90}{9}$

$a=10$

The number is 10

LS verify RS

$9a+9$ 99

$9\times10+9$

$90+9$

99

Recall key words:

For each, for every per, / ⟶this goes with the variable.

Example 1) Marie went bowling. It cost $3 for shoe rental and $2 for one game. The total amount of money was $25. How many games did Marie play?

Hint: How many people went bowling? So how much for shoes?

Solution to Example

Marnie went bowling. It cost $3 for shoe rental and $2 for one game. The total amount of money was $25. How many games did Marnie play?

x = games played

$2x + 3 = 25$

$2x + 3 - 3 = 25 - 3$

$2x = 22$

$\frac{2x}{2} = \frac{22}{2}$

$x = 11$

Marnie played 11 games.

Class / Homework

Ex Prac 4 # 3, 4,5 (already have)

Page 243 # 1 to 6 2, 3, 4

Test 3 days time

Attachments

Extra Practice 4 Solving Equations byusin algebra pdf.pdf