HANDS-ON EQUATIONS®
VERBAL PROBLEMS
Introductory Workbook

By Henry Borenson, Ed.D.

Todd is 8 years older than his little sister Kate.
If the sum of their ages is 20, how old is each?

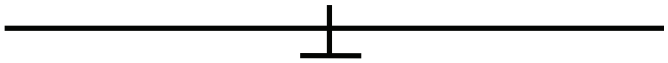
- Begin as early as the 3rd grade
- A graduated progression of 27 lessons
- Three examples per lesson
- Work template included with each example

Name: _____ Grade: ____ Date: _____

16. **Two boxes of pencils and three loose pencils yield a total of 13 pencils. How many pencils are in each box?**

Let ▲ be…

Setup (use scale at right)



Solution for setup: ▲ =

Answer in sentence format:

Check:

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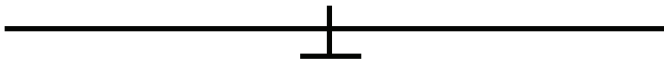
17. **Three sets of cards, each containing the same number of cards, were spread out and added to 5 loose cards, giving a total of 26 cards. How many cards were in each set?**

Let ▲ be…

Setup (use scale at right)



Solution for setup: ▲ =

Answer in sentence format:

Check:

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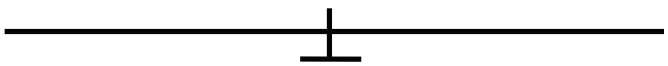
18. **Five packets of balloons and 4 loose balloons yield 59 balloons. How many balloons are in each packet?**

Let ▲ be

Setup (use scale at right)



Solution for setup: ▲ =

Answer in sentence format:

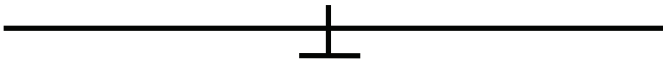
Check:

Name: _____ Grade: ____ Date: _____

31. **Three times Cynthia's age, increased by 5, gives the same result as twice her age, increased by 6. How old is Cynthia?**

Let ▲ be…

Setup (use scale at right)



Solution for setup: ▲ =

Answer in sentence format:

Check:

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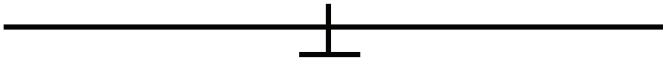
32. **Five times Kay's age, increased by 2, is the same as twice her age, increased by 11. How old is Kay?**

Let ▲ be…

Setup (use scale at right)



Solution for setup: ▲ =

Answer in sentence format:

Check:

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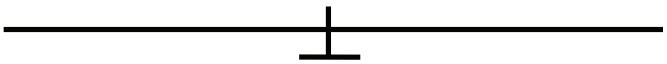
33. **Chuck had four sets of cards and 3 loose cards. Rose had one set of cards and 15 loose cards. All of the sets held the same number of cards. If Chuck and Rose had the same number of cards, how many cards were in each set?**

Let ▲ be

Setup (use scale at right)



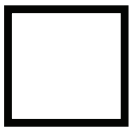
Solution for setup: ▲ =

Answer in sentence format:

Check:

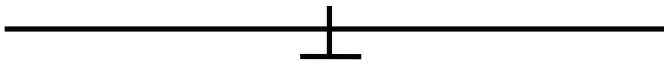
Name: _____ Grade: ____ Date: _____

58. **The side of a square is x. If the perimeter is 36 cm, how long is each side?**



Let the side of the square be 

Setup (use scale at right)



Solution for setup: 

Answer in sentence format:

Check:

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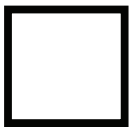
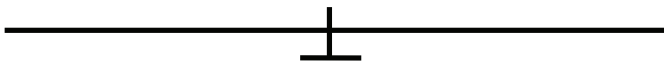
59. **The side of a square is 2x + 1. If the perimeter is 44, how much is x?**



Let the side of the square be …

Setup (use scale at right)



Solution for setup: 

Answer in sentence format:

Check:

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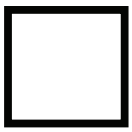
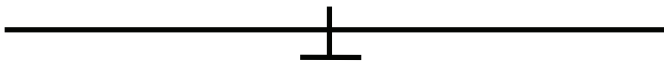
60. **The side of a square is 5x + 2. If the perimeter is 68, how much is x?**



Let the side of the square be…

Setup (use scale at right)



Solution for setup: 

Answer in sentence format:

Check:

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22. **Four times a number gives the same result as three times the same number, increased by 9. Find the number.**

Let ▲ be the number

Setup (use scale at right)

Solution for setup: ▲ = 9

Answer in sentence format: The number is 9.

Check: 36 ✓= 36

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23. **Five times a number is the same as three times the same number, increased by 16. Find the number.**

Let ▲ be the number

Setup (use scale at right)

Solution for setup: ▲ = 8

Answer in sentence format: The number is 8.

Check: 40 ✓= 40

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24. **If 6 is added to twice a number the result will be the same as four times the same number. Find the number.**

Let ▲ be the number

Setup (use scale at right)

Solution for setup: ▲ = 3

Answer in sentence format: The number is 3.

Check: 12 ✓= 12
