

Examples 5 in Arithmetic 1

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Click this to start.

Examples 5

Again, this practice helps improve your mental math.

Your mental math will help you stay focused when you do math.

The more mental math you do, the less you get distracted. More likely to stay focused if doing math mentally.

Examples 5

3

0. $4 + (-7) + 12 + (-8) + (-5)$

Click the problem to see the solution.

$$-7 - 5 = -12$$

$$4 + (-7) + 12 + (-8) + (-5)$$

$$= (-7) + 12 + (-5) + 4 + (-8) = 12 - 12 + 4 - 8$$

$$= 0 + 4 - 8 = -4$$

Of course, we can group together first, the positive numbers and negative numbers, and then, proceed with the work. There are many ways to get to the same destination.

Examples 5

5

What matters first in math is the accuracy.

The next is the speed. We don't want to get the wrong solution fast, do we?

By the way, I make a lot of mistakes. So find the mistakes I made in the calculations below, and if any, correct them.

6

1. $-3 + (-8) + 9 + (-7) + (-2) + 5$

Examples 5

7

$$9 + (-7) + (-2) = 9 + (-9) = 0$$

$$\begin{aligned} -3 + (-8) + 9 + (-7) + (-2) + 5 &= -3 - 8 + 5 \\ &= -3 - 3 - 5 + 5 = -6 \end{aligned}$$

8

2. $-4 + (-3) + 5 + (-2) + 9 + (-7)$

Examples 5

9

$$-4 + (-3) + (-2) = -9, \text{ and } (-2) + (-7) = -9$$

$$-4 + (-3) + 5 + (-2) + 9 + (-7) = 5 + (-7) = -2,$$

and we can get it the way below, too:

$$-4 + (-3) + 5 + (-2) + 9 + (-7)$$

$$= -4 + (-3) + 5$$

$$= -4 + 2 = -2.$$

3. $7 + (-27) + (-18) + (-26) + 23 + (-19)$

Examples 5

11

$$\begin{aligned} & \{7 + (-27)\} + (-18) + \{(-26) + 23\} + (-19) \\ &= -20 - 18 - 3 - 19 \\ &= -20 - 10 - 8 - 2 - 1 - 10 - 9 \\ &= -20 - 10 - 10 - 1 - 10 - 9 \\ &= -50 - 10 \\ &= -60 \end{aligned}$$

4. $-16 + (-27) + (-18) + 27 + 16 + (-17)$

Examples 5

13

$$-16 + (-27) + (-18) + 27 + 16 + (-17)$$

$$= -18 - 17$$

$$= -18 - 12 - 5 = -30 - 5 = -35$$

5. $129 + (-26) + (-38) + (-12) + 28 + (-52)$

Examples 5

15

$$129 + (-26) + (-38) + (-12) + 28 + (-52)$$

$$= 129 - 26 - 10 - 12 - 52$$

$$= 103 - 10 - 12 - 52$$

$$= 101 - 10 - 10 - 52$$

$$= 81 - 52 \quad \{\text{Notice that}$$

$$81 - 52 = 80 + 1 - 50 - 2 = 80 - 50 + 1 - 2\}$$

$$= 30 - 1 = 29$$

6. $-937 + 27 + (-18) + (-21) + 937 + (-27)$

Examples 5

17

$$-937 + 27 + (-18) + (-21) + 937 + (-27)$$

$$= -18 - 21 = -18 - 2 - 19 = -39$$

$$= -9 - 9 - 21 = -9 - 30 = -39$$

$$7. \quad 27 + (-39) + (-286) + (-9) + 785 + (-75) + (-23)$$

Examples 5

19

$$\begin{aligned} & 27 + (-39) + (-286) + (-9) + 785 \\ & + (-75) + (-23) \\ & = -4 - 39 - 286 - 9 - 75 + 785 \\ & = -43 - 200 - 80 - 6 - 9 - 75 + 700 + 80 + 5 \\ & = -43 + 500 - 10 - 75 = -43 - 85 + 500 \\ & = -128 + 100 + 400 = -28 + 100 + 300 \\ & = 378 \end{aligned}$$

8. $-334 + (-27) + 300 + 7 + (-389) + 9 + 30$

Examples 5

21

$$-334 + (-27) + 300 + 7 + (-389) + 9 + 30$$

$$= -34 - 20 - 380 + 30$$

$$= -54 - 350$$

$$= -404$$

$$\begin{aligned} 9. \quad & 467 + (-60) + 24 + (-7) + 300 + (-400) \\ & + (-300) \end{aligned}$$

Examples 5

23

$$\begin{aligned} &467 + (-60) + 24 + (-7) + 300 \\ &+ (-400) + (-300) \\ &= 400 + 24 - 400 \\ &= 24 \end{aligned}$$

A. $6789 + 247 + (-700) + (-47) + (-6000) + (-9)$

Examples 5

25

$$6789 + 247 + (-700) + (-47) + (-6000) + (-9)$$

$$= 89 - 247 - 47 - 9$$

$$= 80 - 200$$

$$= -120$$

$$\begin{aligned} \text{B. } & -785 + 37 + (-428) + 80 + 300 + 17 + 400 \\ & + (-7) \end{aligned}$$

Examples 5

27

$$\begin{aligned}& -785 + 37 + (-428) + 80 + 300 \\& +17 + 400 + (-7) \\& = -705 + 37 - 428 + 300 + 10 + 400 \\& = -5 + 37 - 428 + 10 \\& = 32 - 418 \\& = 30 - 416 \quad \{\text{Notice that } 30 - 10 = 20.\} \\& = 20 - 406 = -386\end{aligned}$$

C. $4893 + (-3003) + 204 + (-90) + (-800) +$

96

Examples 5

29

$$\begin{aligned} & 4893 + (-3003) + 204 + (-90) + (-800) + 96 \\ &= 1000 + 204 + 96 \\ &= 1300 \end{aligned}$$

$$\text{D. } -5930 + 396 + (-56) + 4000 + (-300) + 1000 + 30 + (-300)$$

Examples 5

31

$$\begin{aligned}& -5930 + 396 + (-56) + 4000 + (-300) + 1000 + \\& 30 + (-300) \\& = -900 + 96 - 56 - 300 \\& = -1200 + 40 \\& = -1160\end{aligned}$$

Note again, there can be many ways to get the same. So you don't have to do calculations the way above.

You might come up with the way it can be done better or the way you like, if you try, of course.

Tried but didn't work?

Well then, try again, if you want to, of course.
You never know until you try, and you know
that.