Pre-algebra
Skill-Builder # I – 2
Subtracting Integers

Apply the **definition of subtraction**:

$$a - b = a + (-b)$$

i.e. subtracting a second integer from a first integer is the same as ***adding the opposite of the second integer to the first integer***. Then apply the addition rules:

$(+)+(+)=(+)$	positive + positive = positive
$(-)+(-)=(-)$	negative + negative = negative
$(+)+(-)$ or $(-)+(+)$	subtract the "smaller" from the "larger" and take the sign of the "larger"

Examples

1) $7-11=7+(-11)=-4$

2) $-8-12=-8+(-12)=-20$

3) $15-4=15+(-4)=11$

4) $-5-(-3)=-5+3=-2$

5) When performing subtraction involving more than two integers one can work from left to right:

$$\begin{aligned} & 3-8-9-(-6) \\ =\ & \underbrace{3+(-8)}+(-9)+6 \\ =\ & \underbrace{-5\ \ +(-9)}+6 \\ =\ & -14\ \ +6 \\ =\ & -8 \end{aligned}$$

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Subtract:

1) $2-9$

2) $3-12$

3) $12-21$

4) $16-24$

5) $-4-6$

6) $-7-10$

7) $-16-7$

8) $-11-13$

9) $8-(-5)$

10) $11-(-7)$

11) $-6-(-10)$

12) $-15-(-5)$

13) $-3-1-2-6$

14) $-7-9-8-4$

15) $3-(-2)-6-1-(-4)$

16) $6-(-3)-(-2)-7-9$

17) $-5-6-(-1)-(-3)-10$

18) $-7-9-(-6)-(-5)-4$

19) $-1-2-(-3)-(-2)-1-7-2$

20) $7-(-3)-5-4-(-2)-(-5)$

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Answer Key:

1) –7

2) –9

3) –9

4) –8

5) –10

6) –17

7) –23

8) –24

9) 13

10) 18

11) 4

12) –10

13) –12

14) –28

15) 2

16) –5

17) –17

18) –9

19) –8

20) 8

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