Multiplication and division of signed numbers worksheet.
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Multiplication

Remember: signed numbers are multiplied the same way as whole numbers, but then you have to remember to write the right sign at the end. The rule for signs is:

$$+ \cdot + = +$$
$$+ \cdot - = -$$
$$- \cdot + = -$$
$$- \cdot - = +$$

For example: $(-5) \cdot 6 = (-30)$ (because $5 \cdot 6 = 30$ and $- \cdot + = -$).

<u>Practice exercises</u>

Write the appropriate sign in the multiplications below.

1. $12 \cdot (-5) = \boxed{-}\ 60$ (example)
2. $(-5) \cdot (-7) = \boxed{+}\ 35$ (example)
3. $(-51) \cdot (-1) = \Box\ 51$
4. $(-31) \cdot (15) = \Box\ 465$
5. $49 \cdot (-6) = \Box\ -294$
6. $20 \cdot 18 = \Box\ 360$
7. $22 \cdot (-99) = \Box\ 2178$
8. $(-91) \cdot (-23) = \Box\ 2093$
9. $(-65) \cdot (-71) = \Box\ 4615$
10. $30 \cdot 62 = \Box\ 1860$
11. $(-80) \cdot 80 = \Box\ 6400$
12. $10 \cdot (-15) = \Box\ 150$
13. $(-20) \cdot (-14) = \Box\ 280$
14. $(-11) \cdot 13 = \Box\ 143$

Multiply

1. $(-6) \cdot (-5) = 30$ (example)
2. $(-5) \cdot (7) = -35$ (example)
3. $(-2) \cdot (-3) =$
4. $2 \cdot (-4) =$
5. $(-9) \cdot (-1) =$
6. $(-5) \cdot 10 =$
7. $(-2) \cdot (-2) =$
8. $2 \cdot 8 =$
9. $7 \cdot (-3) =$
10. $9 \cdot (-2) =$
11. $(-7) \cdot (-7) =$
12. $(-4) \cdot (-3) =$
13. $0 \cdot (-8) =$
14. $(-3) \cdot (-5) =$
15. $(-2) \cdot 9 =$
16. $7 \cdot (-8) =$
17. $12 \cdot (-4) =$
18. $21 \cdot (-5) =$
19. $(-22) \cdot 9 =$
20. $7 \cdot (-81) =$

Division

Remember: signed numbers are divided the same way as whole numbers, but then you have to remember to write the right sign at the end. The rule for signs is the same as for multiplication:

$$+ \div + = + \qquad + \div - = - \qquad - \div + = - \qquad - \div - = +$$

For example: $(-10) \div 5 = (-2)$ (because $10 \div 5 = 2$ and $- \div + = -$).

<u>Practice exercises</u>

Divide

1. $(-12) \div (-6) = 2$ (example)
2. $(-15) \div 3 = (-5)$ (example)
3. $(-2) \div (-1) =$
4. $12 \div (-2) =$
5. $(-9) \div (-3) =$
6. $(-50) \div 10 =$
7. $(-26) \div (-2) =$
8. $8 \div 2 =$
9. $17 \div (-1) =$
10. $18 \div (-9) =$
11. $(-7) \div (-7) =$
12. $(-4) \div 2 =$
13. $0 \div (-8) =$
14. $(-16) \div 4 =$
15. $22 \div (-2) =$
16. $(-7) \div 0 =$