

Numbers, Operations and Relationships

Properties of Whole Numbers

1. Say whether the following mathematical statements are true or false:

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| a) $34 + 46 = 46 + 34$ | b) $34 + 46 = 46 - 34$ |
| c) $12 + 10 + 11 = 10 + 11 + 12$ | d) $1 \times 2 \times 3 = 3 \times 2 \times 1$ |
| e) $40 \times 1 = 40 \times 0$ | f) $40 \times 0 = 40 + 0$ |
| g) $58 \times 1 = 58 + 0$ | h) $4(10 - 6) = 4 \times 10 - 4 \times 6$ |
| i) $10 \times (4 \times 9) = (10 \times 9) \times 4$ | j) $20 - 18 = 18 - 20$ |
| k) $34 + 70 = 70 + 34$ | l) $72 - 61 = 72 + 61$ |
| m) $24 + 1 = 24 \times 1$ | n) $24 + 1 = 24 + 0$ |
| o) $24 \times 1 = 24 + 0$ | p) $64 + 5 + 1 = 64 - 5 - 1$ |
| q) $7 \times 2 \times 5 = 5 \times 2 \times 7$ | r) $7 \times 8 \times 1 = 7 \times 8 \times 0$ |
| s) $8 \times (1 \times 3) = (8 \times 3) \times 1$ | t) $5(6 + 4) = 5 \times 6 + 5 \times 4$ |

2. Write down the answers to each of the following:

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|------------------|-----------------|-------------------|
| a) 7×1 | b) 7×0 | c) $7 + 1$ |
| d) $7 + 0$ | e) $24 + 10$ | f) 24×10 |
| g) 24×0 | h) $24 + 1$ | i) 24×1 |

3. Rearrange each of these sums so that they are easier to answer

Here is an example: $3 \times 6 + 3 \times 4 = 3 \times (6 + 4)$
 $= 3 \times 10$
 $= 30$

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|-------------------------------|--------------------------|
| a) $4 \times 5 + 5 \times 16$ | b) $4 + 9 + 5$ |
| c) $3 \times 16 - 3 \times 5$ | d) $3 \times 4 \times 6$ |
| e) $6 \times 12 - 6 \times 2$ | f) $8 + 7 + 2$ |