Properties of Parallelograms

Parallelograms have all of these properties:
—both pairs of opposite sides parallel
—both pairs of opposite sides congruent
—both pairs of opposite angles congruent
—diagonals bisect each other

Shade the answers below to discover the corporation whose success is based on the invention of Chester Carlson.

1. If CA = 10, EK = _____ .
2. If CK = 18, CX = _____ .
3. If ∠CEK = 85°, ∠CAK = _____ .
4. If ∠ECA = 130°, ∠CAK = _____ .
5. If ∠1 = 40° and ∠2 = 65°, ∠EKA = _____ .
6. If EX = 15, EA = _____ .
7. If CE = 12, KA = _____ .
8. If ∠8 = 25° and ∠7 = 35°, ∠EKA = _____ . E
9. If CX = 5x – 44 and XK = 2x + 25, then x = _____ .
10. If ∠7 = 30° and ∠4 = 40°, ∠EKA = _____ .
11. If CE = 3x + 5 and AK = 7x – 15, then x = _____ .
12. If ∠ECA = 6x – 20 and ∠EKA = 2x + 80, then x = _____ .
13. If ∠CAE = 35°, ∠AEK = _____ .
14. If ∠2 = 100° and ∠3 = 20°, ∠CXA = _____ .
15. If ∠CEK = 80°, ∠EKA = _____ .
16. ∠1 + ∠2 + ∠3 + ∠4 + ∠5 + ∠6 + ∠7 + ∠8 = _____ .

Diagram labels: C, A, 1, 2, 3, 4, X, 8, 7, 6, 5, E, K

Answer grid (shading puzzle):
115° | 95° | 13 | 27 | 200° | 21 | 5° | 17 | 175° | 101 | 16 | 9° | 105 | 50 | 20 | 35 | 140° | 40 | 60 | 125° | 10.5 | 180° | 90 | 155° | 130°
52° | 160° | 36° | ...
26 | 10 | 0 | 23 | 110° | 360° | 4 | 25 | 7 | 180°
33° | 29 | 13 | 25° | 100° | 11 | 1 | 15° | 45° | 90° | 45
90° | 25° | 50 | 105° | 50° | 30° | 12 | 27 | 40° | 360
100 | 32 | 120° | 20° | 65° | 60° | 9 | 2 | 8 | 15 | 14 | 101° | 20 | 102°
6 | 30 | 5 | 3 | 85° | 35° | .5 | 8°
14 | 3 | 19 | 80 | 10° | 145° | 9.5 | 22 | 88 | 100 | 12° | 85 | 25° | 205°
33 | 18 | 135° | 44
190° | 133 | 24 | 2° | 170° | 32 | 23° | 195° | 23.5 | 150° | 1/2 | 115° | 185° | 95°
77 | 28 | 255 | 666 | 110 | 26° | 80° | 70
4° | 15 | 120