315. 2.40

317. 0.98 cm

319. 10.5 cm

321. 64.0 cm in front of the mirror

323. 8.3 cm

325. 0.40

327. -11 cm

329. 2.9979×10^8 m/s

331. 33.3 cm

333. 0.19

335. 32.2°

337. −10.4 cm

339. 18 cm

341. 1.63

343. 39.38°

345. 58°

347. −21 cm

349. ∞

351. 1.486

353. 1.54

355. 4.8 cm

357. 1.73 to 1.83

359. $5.18 \times 10^{-4} \text{ m} = 0.518 \text{ mm}$

361. 0.137°

363. $9.0 \times 10^{-7} \text{ m} = 9.0 \times 10^{2} \text{ nm}$

365. 11.2°

367. 0.227°

369. 1.445×10^4 lines/cm

371. 140 N attractive

373. 2.2×10^{-17} C

375. 0.00 N

377. 4.0×10^{-8} N, 9.3° below the negative *x*-axis

379. 260 N from either charge

381. 1.6×10^{-12} C

383. 0.585 m = 58.5 cm

385. 3.97×10^{-6} N, upward

387. 0.073 m = 7.3 cm

389. 7.5×10^{-6} N, along the +y-axis

391. 4.40×10^5 N/C, 89.1° above the -x-axis

393. −7.4 C

395. 1.6×10^{-19} C

397. 36 cm

399. $4.4 \times 10^{-4} \text{ J}$

401. 7.1×10^{-4} F

403. 4.0 A

405. 160Ω

407. $1.7 \times 10^6 \text{ W} = 1.7 \text{ MW}$

409. 6.4×10^2 N/C

411. 12 V

413. 1.2×10^{-5} m

415. 1.4×10^2 C

417. 7.2 s

419. 4.8 V

421. 116 V

423. $5.0 \times 10^5 \text{ W} = 0.50 \text{ MW}$

425. $7.5 \times 10^6 \text{ V}$

427. $3.00 \times 10^2 \Omega$

429. 6.0Ω

431. 13 Ω

433. 6.0 Ω

435. 0.056 A = 56 mA

437. 1.6 A (refrigerator); 1.3 A (oven)

439. 12.6 Ω

441. 2.6 V

443. 9.4 Ω

445. 1.6 A

447. 1.45 A

449. $4 \times 10^{-12} \text{ N}$

451. 7.6×10^6 m/s

453. 0.70 A

455. $5.1 \times 10^{-4} \text{ T}$

457. $3.9 \times 10^{-15} \text{ N}$

459. $1.5 \times 10^5 \,\mathrm{A}$

461. $1.7 \times 10^{-2} \text{ T}$

463. 0.90 s

465. 450 V

465 104

467. 1.8 A

469. $3.4 \times 10^4 \text{ V} = 34 \text{ kV}$

471. 48 turns

473. $2.5 \times 10^{-3} \text{ A} = 2.5 \text{ mA}$

475. 0.85 A

477. 48:1

479. 3.32×10^{-10} m

481. 1.00×10^{-13} m

483. 3.0×10^{-7} m

485. 26 kg

487. $4.30 \times 10^{14} \,\mathrm{Hz}$

489. $6.0 \times 10^{14} \, \text{Hz}$

491. $4.0 \times 10^{-21} \text{ kg}$

493. 2.5×10^{-43} m

495. $7.72 \times 10^{14} \, \text{Hz}$

497. 333.73 MeV

499. 0.543 705 u

501. $^{16}_{8}$ O

503. 15.0 s

505. 31.92 h

507. 35.46 MeV

509. ¹³¹₅₃I

511. $^{111}_{54}$ Xe

513. 924 days