10) $\pi \times d \times \frac{\theta}{360}$

$= \pi \times 50 \times \frac{150}{360}$

$= 65.449\ cm.$

b) $100m = 10000\ cm$

$10000 \div 65.449$

$= 152.79$

$= \underline{152\ hats}$

11) Volume of cone $= \frac{1}{3}\pi r^2 h$

$= \frac{1}{3} \pi \times 15^2 \times 20$

$= 4712.39\ cm^3$

Volume of cylinder $= \pi r^2 h$

$= \pi \times 12^2 \times 18$

$= 8143.01\ cm^3$

It will hold the liquid as

$4712.39 < 8143.01$

Expressions & Formulas

Practice Test 1

Solutions

1) $\sqrt{50} = \sqrt{25 \times 2} = \sqrt{25}\sqrt{2} = 5\sqrt{2}$.

2a) i) $\frac{x^3 \times x^4}{x^2} = \frac{x^7}{x^2} = x^5$

ii) $6x^3 \times 2x^{-\frac{3}{2}} = 12x^{\frac{3}{2}}$

b) $2.6 \times 10^7 \times 14$

$= 364\,000\,000$

$= 3.64 \times 10^8$

3a) $a(5a - b) = 5a^2 - ab$

b) $(x+4)(x+5) = x^2 + 4x + 5x + 20$

$= x^2 + 9x + 20$

4a) $x^2 - 8x = x(x-8)$

b) $y^2 - 36 = (y)^2 - (6)^2 = (y-6)(y+6)$

c) $z^2 + 10z + 21 = (z+7)(z+3)$